

CHAMBERS'S
PAPERS FOR THE PEOPLE

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CHAMBERS'S

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RECENT DECORATIVE ART.

TO few will a teapot or a cotton-gown suggest itself in the light of a work of art; yet, produced on right principles, such things may in the full sense fall within the category. When manufactured in the most utilitarian spirit, attention will be expended on their decorative characteristics, influence exerted thereby. Some tincture of æsthetic aim, in development of form, colour, surface-design, it is difficult to separate from the results of man's mechanical ingenuity: some instinctive endeavour to satisfy the demands of appearance as well as of utility. How truly and how far the endeavour be fulfilled, depends on the soundness and degree of the vitality of art generally, among a particular people, or at a particular epoch.

In the decoration of utilities art makes its first appearance—long before the birth of its independent phases. It thus shows itself among undeveloped nations, even, with few exceptions, the most barbarous. We descend very low when we find no art at all—neither the rudiments of science in observation of nature—God's creation—nor those of man's own secondarily creative power. The progress of every nation has probably been, from æsthetic treatment of articles of familiar use—utensils, weapons, personal adornments—to architecture, the development of expression and beauty in *buildings*, primary objects of utility too; and thence a further stage, in their decoration by painting and sculpture. Here, we find the origin of those two fine arts, in all ancient time attaining ripest excellence in association with architecture, in recent having an isolated existence. A cycle has been completed: from the inability of the lowest savage to the inability of a confused civilisation. In the intermediate stage, a semi-developed

own. In modern days, has been seen the anomaly of nations that could paint a good picture, or carve a poetic sculpture, without possessing an architecture or any decorative art, in the true sense; without ability to construct a building having its own meaning and beauty, or to adorn an ordinary utensil in a ornamented consistent way. Strangely enough, the articles of uncultivated nations are more pleasing in effect, more faithful to principles, than any characteristic of existing Europe. The lot of the former would seem intuitive congruity with nature. The latter has so far lost itself, as to find it hopeless to realise that simple truth obeying the hand of the half-savage craftsman.

Passing to the civilised but stationary nations of the East, and their more advanced art, occurs similar exemplification of happy excellence, of singleness of aim, and simplicity of execution. The consistent beauty and truth, in colour and pattern, of a Persian carpet, a Cashmere shawl, and in harmony of form, hue, general effect, of a piece of Chinese porcelain, are familiar, and have originated copyism more or less successful.

Among those nations of antiquity since extinct or degenerate—Egypt, Assyria, Etruria—like facility and truth of decorative art are attested by existing remains, as accompanying high attainment in universal art, in architecture, sculpture, painting.

In Greece, accompanied, in its famous pottery preceded, by Etruria, and followed in a lower by Rome, consummated beauty succeeded to the less intellectual stages. Greece realised a catholic manifestation of *all* the arts, each in unexampled perfection; with a consonant refinement of the arts decorative. It has been only approached, before or since, in the mediæval time. These two epochs—the Grecian and the mediæval—stand alone, for a *universal* application, after their separate manners, of true art, and a universal reaching, not only, as among the Orientals, of vitality, but also of a peculiarly elevated standard. In every direction, however, mediæval Europe did not attain parallel *executive* excellence. The period Gothic spirit ruled intact was not long enough for this. That department—pottery—through the abundance of remains, specially characteristic with us of antiquity, an application of art to utilities, elevating this to a par with art's highest manifestations—happens to be far from prominent in the mediæval era: one undeveloped till the 'Revival.'

At the 'Revival,' the legitimate principles of Christian art became first blended, then lost, in those of alien models. Under the new conditions of the pseudo-classicism of the sixteenth century, decorative art continued to be informed by very full life. In some provinces it, in Italy and Germany, was prosecuted by artists—Benvenuto Cellini, Albert Durer, &c. —whose works yet maintain their renown for exceeding beauty of execution, and of feeling. Throughout the seventeenth century similar vitality lingered, but in still less purity. During the eighteenth century it gradually expired; assuming in England the stiff forms of the time of Queen Anne, and elsewhere such perverted phases as the Louis Quinze. Early Louis Quatorze itself was to mediæval ornament what in architecture Elizabethan was to Gothic—the vigorous distortion of that once art.

Throughout these changes of *form*, the Gothic spirit may be recognised surviving indirectly. After the final loss of the remnants of the old spirit late in the last century, commenced that indiscriminate eclecticism,

and reproduction, come to a height in the present practice of ornamental art, as of architecture. Grecian, Gothic, Byzantine, Oriental, Renaissance—all are copied. The same jumbling of principles has come to pass, as of styles; forgetfulness of those varying fundamental laws governing the pursuit of nature in every phase of art. We moderns have evidently something to say here, could we but find the way. The multiplicity of models is our perplexity; the way so sadly confused: a confusion as of Babel, worse confounded, by lack of grammar in each separate tongue.

These losses are shared by all Europe. In some Oriental nations decorative art still survives, 'decrepit, but not insane.' One difference exists between the leading continental nations and ourselves—the more cultivated executive skill of the latter. Their hold of principles, the essential vitality of their design, are no greater. They contrive no more than we to express anything of their own. But what they do say, they say grammatically.

In England, art, after a space of utter inanition, revived in a piecemeal fashion; one isolated fragment or so at a time. In continental Europe, an artistic tradition had never died out. Direct remembrances of the Gothic system here and there lingered. The lineal succession was, in a material sense, always maintained. An education of producers, artisans and designers, and of consumers, existed under one form or another from the Gothic time downwards. And as one result, industrial artists have never there been degraded into mere mechanical servants, of manufacturers almost necessarily ignorant of art. When, during the eighteenth century, the mediæval system of guilds and apprenticeships had become extinct—when machine-work began to compete with hand-work—academies, Schools of Design, in the end, public exhibitions, were substituted. By these was sustained the executive facility of the artisans.

In England, no substitution was made. Things were left to take their own course, as always left here, in matters of government. The new system silently undermined the old. Machine-work took more and more the place of hand-work. The education of the factory superseded that of the workshop. That of the workshop grew more and more mechanical, less and less artistic. Design separated itself from art-workmanship. No means were provided for right culture of either. At last, things *having* taken their course, arrived at such a pass, after England, by gigantic mechanical movements creating a manufacturing system for the world, saw itself in danger of losing its *regal* share in the results, through inferiority in all wherein design had *part*. In one direction, paper-hangings, where it had had the superiority, it imported in the ratio of former exports.

Fifteen years ago, people awoke in a fright; the government itself, at the eleventh hour. A committee of the House sat. Schools of Design were to be established. In 1837 the head-school was set agoing at the public expense; followed by branch ones in the provinces, in part dependent on local contributions. As yet, it is hard to find a manufacturer attributing any sensible personal advantage to this step.

General attention has been unprecedentedly aroused. It has shown itself in many ways. Six years ago, the 'Art-Journal' testified to the importance of the arts decorative, by including them within its scope. Three years later, an association of the endeavours of some leading artists, with those of enterprising manufacturers, commenced through the agency of 'Felix

Summerly.' Last year (1849), a periodical, the 'Journal of Design,' was successfully established, specially devoted to industrial art; comprising original papers, and notices of new productions in textile manufacture, in the metals, pottery, &c.; with illustrations and actual textile specimens. Its tone of criticism has been of an advanced and eminently-intelligent order.

Above all, the popular interest has been quickened and educated by the exhibitions which have so rapidly gained ground. These have introduced the producers to the public. Manufactures, of which the results are scattered among all, had before been almost unknown in their general bearings. On the continent, national exhibitions had long prevailed: in France, since 1798, recurring at irregular intervals down to 1819, from which date quinquennial. In England, small special exhibitions had occasionally taken place at Birmingham, Glasgow, &c.; and more continuously at Dublin. The first attempt at a comprehensive representation of British manufacture was the bazaar of the Anti-Corn-Law League in 1845. It was followed by an exhibition independent of political ends at Manchester, in 1846; and by those of the London Society of Arts, commencing in 1847. This society early took a prominent and laudable position in the movement. Finally, we have repetitions of former experiments at Manchester; and the very splendid display of last year at Birmingham. These things have paved the way for that grand scheme, the cynosure of all immediate hope in industrial design—an Exhibition of the Industry of All Nations in 1851: due to Prince Albert and an intelligent party in the Society of Arts.

Such realisations are rather the result than cause of the general movement. Had no new interest arisen in the public mind, they could not have existed, far less have had a widespread influence. The ready response each scheme has met proves how much was latent. Exhibitions—Felix Summerly's art-manufactures—Schools of Design—all are witnesses of the feeling which, consonantly with the spirit of the age, had silently taken root in the public mind, amid the neglect of the 'constituted authorities;' necessitated by the vast and growing importance of the interests concerned, and the changes in the governing conditions of production and design.

In the practical employment of design, what with recent public interest, and awakened manufacturing zeal, advances have been made during the last ten, and still more six, years. A new sense of their position has arisen among manufacturers; due to the new demand from the public. The present public has, with all its deficiencies, a vague desire for something good. The manufacturers soon feel this, in the competition with foreign and other rival producers, and must meet it. The immense *commercial* importance of design, with its daily operating influence on the choice of purchasers, forces itself on their notice. To the previous torpor, a general quest after decorative effect of some kind has succeeded; fulfilled by fair means or foul, original design, or piracy of the ideas of others.

The sense of deficiency, the mere attempts at art, even without immediate success, are promising. We doubt not the final attainment, with awakened attention, of that executive facility, and correct representation of nature, constituting present French superiority. The distance is not so great as it appears. It is art-workmen our manufacturers need, even more

than training in the designer; workmen capable of executing the design with artistic intelligence. These things will come with time and zeal. The demand is pretty sure, in England, of securing the supply when, materially speaking, feasible. Within the memory of man the reproach of inability to 'draw' has been removed from our school of painting. A curious fact is the superiority of English higher art, parallel with equal inferiority in the subordinate phases. The former was earliest to emerge from the general prostration. Till lately art, as a result of the modern piecemeal manifestation of it, had long been understood to mean this or that of its leading developments. We are now beginning to understand that art (formative) is not painting, is not sculpture, merely, but a much larger matter, embracing, with architecture as the mistress, every department of technic production, on the results of which æsthetic meaning may be impressed.

Essential progress, in the true, to us half-ideal, practice of design; in obedience to fundamental principles; in a consistent language of our own; is not readily to be made. It will long, we fear, continue beyond the reach of England and of Europe. The real advance of the age, and of England distinctively, is circumscribed to the technic arts, their abridged processes, their enlarged results; to that colossal extension of utilitarian attainment, of the facilitating services of nature, which has made the time a marvel to itself. In the strictly mechanical phases it has been one system of progress. Machinery has developed a before-undreamed life; has lifted its arms of might, and done its wondrous work; realised its store of comforts by the million in the place of luxuries by the score. But the eloquence to have been impressed on its work has not been added. Dumb, inarticulate, is its outward appeal; or worse, lying, distorted; putting on semblance of alien life, instead of the revelation of its own. For, as already said, we cannot avoid some attempt at decorative effect. Whether it be genuine, or idle and inane, is then a consideration well to study. In the æsthetic province there has been entirely wanting the vitality which should have turned to account the mechanical gains of the age, and educes expression of that spirit surely pervading them.

The modern conditions of design are distinct from any previous; they demand equally novel fulfilment. For hand-work, we have machine-work; for an ornamental idea lavished on a single example, infinite multiplication, by engraved plates, blocks, cylinders; by punches, squeezes, moulds, types, dies. For that highest value of art-working, the living 'evidence of human care and thought and love,' reigns the 'blind accuracy of the engine.' But the evidence of human thought, though banished from the execution, may pervade in the fullest measure the idea. The absence of direct executive human labour may be met by an appropriate decorative system. The extent to which multiplication is carried is peculiar to modern time. The multiplication itself is no novelty. The coins of the ancients exemplify the artistic excellence transmissible through a mechanical medium. The substitution of the machine for human labour is often made with no commensurate result: a mere superfluous triumph over difficulty, or tame imitation of effects proper to the living hand. But the legitimate value of machinery is high; the extension of the range of decorative art, the general diffusion of refinements. These are great goods. They are rightly to be realised through development of an independent character and reality

in the multiplied ornament. The cheap, widely-diffused bad copy of some good thing is not, as too often implied, gain—only evil. The cheap, widely-diffused good substitute, having its own individuality, however restricted, is unmixed benefit.

Separation inevitably prevails, of designer—the furnisher of the specific ornament—and practical workman, the reproducer. But the divorce between art itself and the secondary agencies is not so absolute. Much of the effect depends on the latter. Art-workmanship is as important as art-design, wherever, as in paper-hangings and bronzes, hand-labour is required in the finishing. And equally so is educated skill in some middle stages—the ‘putting on’ in textile fabrics—though the final processes be wholly mechanical. In some manufactures—as casting in iron, even in these, much depends on the care, guided by intelligence, of the workmen. The two modes of reproduction are, where partially mechanical, as in the above cases; and where artistic skill is, or ought to be, indispensable throughout. The latter class includes house-decoration, carving on wood, metal-cutting and chasing, engraving on glass, painting on pottery.

Great and various have been the technic advances of manufacture: in material, processes, new applications of mechanical power. In *textile* manufacture, within a century, a whole branch of trade we find created, in *cotton*, and progressively increasing. Throughout, it has been systematic improvement. Foremost, ranks increased facility of production, through the mechanical discoveries of our Watts, Arkwrights, Cromptons, Hargreaves, and the colossal application of their steam-power and complex machinery. Secondly, we have the practical mastery of chemistry, applied to bleaching and dyeing, to the securing permanency and variety of hue, and extension of the decorative range. Thirdly, come facilitated processes of printing; the introduction of metal cylinders, with their new capabilities to compete with wooden blocks; the engraving the cylinder from the previously-engraved die; and recently, the printing several colours at once, instead of for each colour a cylinder. Last, we rank modifications of fabric, and the consequent creation of new demands.

In the *silk* manufacture, in England more of an exotic, the usual enhancement of production through machinery has taken place; above all, through application of the French Jacquard-loom.

One manufacture has been created since the beginning of the century, by machinery especially complicated in invention: the *bobbin-net*, or machine-made lace, now of national importance, producing to the annual value of more than £3,000,000 sterling. The cheapness here, as in the cotton manufacture, result and cause of increased production, has been carried to its utmost. Ever-new improvements in mechanism have resulted in a present market-price often 90 per cent. less than that of former days.

In the *woollen* manufacture, both fabric and dye have advanced. Worsteds and stuffs have been distinguished by increased production, and multiplication of the kinds of fabric. In the finer sorts, merinos, we now rival the French. In shawls, the beautiful Oriental manufacture has been imitated and superseded; and the men of Paisley have kept pace with those of Lyons. Carpets have in fabric and dye undergone manifold transmutations; terminating with the economised

application of dye and extension of the scale of colour of the tapestry-carpets; and the recent application of printing, successful as to first cost-cheapness.

In *paper-hangings* we have recently, facilitated production through machinery, improvements of material in increased length of piece, of texture and surface of the finished article, and of colour, its effect and durability.

Among the metals, *iron* has made the greatest stride. By development of the system of casting, so characteristic of modern manufacture, a revolution has been effected. For ornamental works on a large scale, as gates and screens, its facility of production has commanded acceptance. In its application to furniture—bedsteads, tables, and smaller articles—besides its previous employment for grates, stoves, &c. an opening of indefinite capability has been commenced. For constructive purposes, it has made way to an extent only perhaps the germ of a new architecture. For supports, trusses of roofs, balconies, its strength and cheapness have already been of great value.

The universal adoption of *pottery* for domestic use dates within the last half century. At the beginning of the eighteenth century it was an insignificant manufacture; throughout the middle ages it was an incipient one. In the sixteenth century, decorated earthenware assumed some remarkable phases in Italy, Germany, and subsequently, France. In Italy, during a period including the sixteenth, and, in less perfection, the seventeenth century, character and beauty were reached peculiar to the time; and the surviving remnants of the ware termed *Majolica* are much prized by the connoisseur in such matters. The finer kinds of pottery were unknown to Europe till the beginning of the eighteenth century, when the production of European porcelain, in imitation of Oriental, arose; and the manufactures of Dresden, Sèvres, and Chelsea, were successively established. The story of the great Wedgwood, and the rise of English pottery as a staple branch of production, is well known. During the latter part of the eighteenth century, under his and auxiliary influence, it advanced in character and extent in a ratio unexampled. Both by recourse to chemical science in improvement and invention of material, and by attention to art new to English manufacture, Wedgwood signalised himself. In the utilitarian qualities of earthenware—strength, and perfection of glaze—the English have been hitherto unequalled. In porcelain, for fineness of material, and combination of impermeability with semi-transparency, foreign manufactures have been rivalled and reproduced. In lustre of hue, some colours in Oriental china have been unapproached, others excelled. The scientific pursuit of colour has not been adequately cultivated.

In *glass*, recent technic advances are confined to the development of plate-glass, and its remarkable results in size and clearness; and in flint-glass, to the purity of the English crystal, parallel with the equally unapproached success of continental, above all, Bohemian coloured glass.

Among *new materials*, or new in their wide extension, *papier-mâché* ranks first. Introduced early in the last century, it had made rapid advances before its close, in strength, facility of production, and of ornamentation; all much further developed during the present. Its applications have become indefinitely multiplied. These, and the strength and

durability of the finished article, are marvellous, when we consider its original beginnings, from thin sheets of paper. Its possible durability, like that of other artificial materials, as porcelain, often rivals or exceeds that of many natural substances.—wood or some kinds of stone. *Carton-pierre*, a composition more successfully imitative of stone, is a later introduction. Of *gutta percha*, a material not invented, but *discovered*, the application, and to the most ornamental and varied purposes, dates within the last few years. *Stamped leather* is a manufacture of the middle ages, to which machinery and new processes have imparted a fresh character and very extended adaptability. Some materials, literally new, are devoted to the reproduction of works of art: *statuary-porcelain*, and *parian*, recent inventions of the potter's art; and *fictile ivory*, a composition of facile production, a fine kind of plaster of Paris subjected to particular chemical action.

The application of science to manufacture belongs to the nature of every advance instanced: it is characteristic of the age. Chemistry, above all, in the hands of the cotton-printer, the potter, the caster in metal, plays an important part. A signal example of scientific influence is *electro-metallurgy*—the process of metallic deposits by electric agency, adapted for silver-plating, recently for bronzing. Its advantages are eminent, in the facility, combined with fidelity, of its reproductions, and the integrity of the deposited surface. Among the fresh applications of mechanism, whereof the name is legion, that for *wood-carving* is an independent and notable one.

Such, then, are the utilitarian acquisitions of the age, and of the last century of devotion to mechanical pursuits. Thus large and varied is the material, to which a 'form and pressure' is to be imparted by a system of indefinitely-multiplied design. Throughout the course we have sketched, England has been foremost. In those departments—machinery, cotton-manufacture—of most important progress, she has been the leading power; in some secondary ones, as pottery, she has engrossed the lion's share. We will now take a summary of design in England, in its bearings to this vast sum of brute-energy, realised by the technic genius of our time.

The importance of textile design, commercially considered, immeasurably exceeds all other. In most printed and woven fabrics, England commands the markets of half the world, for quality of material and cheapness; French design alone competes with us. This very proficiency—the one wanting for predominance—the English manufacturer once disregarded in his eager pursuit of facility of production. The design was reckoned as purely mechanical as the rest. Instead of occupying an honoured station, as in France, the professional designer was slighted—to a great extent still is—poorly paid, and worse esteemed. Of this, the fault lies at the door of all concerned—the public and non-educating government included. Barefaced plagiarism was substituted for that good design, not at hand, nor forming part in the manufacturer's notion of personal outlay: a system still too favoured; one of little wisdom. A design is thus the common property or plunder of all; instead of securing remuneration to one, gives it to none, or gives it by chance, in the general scramble. The cost of an original design is itself trifling. The getting-up is the main expense; one incurred whether the design be original or copied. And though good in itself, the copied design may be, and constantly is, ruined in the processes of 'putting on,' &c.;

processes, though more mechanical; requiring artistic skill like that of the designing itself.

Present textile design is necessarily miscellaneous enough; what with plagiarism, and ill-judged doctoring of plagiarism, the paucity of well-instructed designers, and the uncertain treatment experienced by them from manufacturers, ignorant commercial 'buyers,' and a capricious public. Novelty—novelty is the end to which all efforts are directed. The patterns of one season are *effete* long before the next. It is little remembered that novelty, far from a thing good in itself, is positive evil, unless it be also improvement. In the headlong pursuit of this one aim, it is unheeded whether novel beauty or novel ugliness be attained, so it be indubitable novelty—a difficult matter, however. That which passes for it is generally only a ringing of the changes on some two or three notes; with imperceptible or unmeaning variations; and occasionally a launch into something novel indeed, in barbarous, *outré* grotesqueness. Of course there is a reason for this indiscriminate preference of novelty on the consumer's part, more deep-seated than the tyranny of caprice itself: the absence of any one design of pre-eminent excellence, and of a settled style of good designs, such as pervades goods of Oriental manufacture.

It is in textile manufacture the fullest scope for an independent decorative system exists. The conditions of modern reproduction and multiplication of pattern by machinery, here prevailing, are so individual to the age, and the diffusion of the design so unprecedentedly large, there perforce has been a development more adapted to the exigencies of the case, than in any other manufacture. Styles, original and appropriate, have been worked out. A modern cotton-gown does preserve its character of cotton-gown, does not ape that of something else—an architectural façade or a painted canvas. Even when ugly and unmeaning, the design has a certain amount of consistency. Often it is very satisfactory.

In most cases, agreeable arrangement of colour is the legitimate effect, rather than outline. To garments, destined, as they are, to fall in folds about the person, elaborate displays of drawing are obviously inappropriate. They presuppose for being seen an impossible surface when the material is 'made up.' The pattern, whether in single colours or not, should be composed of general outlines that will lose nothing by transposition one over the other; not too detailed or precise; and handled, especially where numerous colours are used, as the vehicle of colour. In the latter relation, the capabilities of textile design have not been fully developed. The available hues are necessarily limited by technical difficulties, though continually increased through systematic resort to experimental chemistry. But the combination of those already used is not understood. The vivid sense of harmony of colour natural to early or simple nations, so characteristic a beauty of Oriental manufacture still, has been lost. The well-grounded culture which should supply its place is not yet attained, nor even aimed at, by the producers of English goods.

In printed garment fabrics manufactured for the home-market, many true principles more or less consistently prevail. Smallness of pattern is one followed to a considerable extent, though not enough; essential in a design consisting of indefinitely-repeated parts. These separate features should make a general whole in which they are lost; not breaking up the

person of the wearer, but subordinate to it. Unbroken distribution of pattern is another attribute contributing to the same ends, not so strictly obeyed as the former, yet of modified prevalence. Flatness of effect, the legitimate characteristic of painted as opposed to sculptured surface ornament, especially as applied by a mechanical medium; essential to unpretentious self-consistency; is also unequally adhered to. As regards colour, the questionable preference of English taste for neutral, undecided tints, what are called 'chaste' effects, prevents the glare and harsh combinations commonly united to the brilliancy and larger patterns of calicos got up for the southern and tropical markets. There the very extension of the scale often educes the more forcibly the incompetence of the English manufacturer for harmonious use of it. A class of goods affording an illustration of the legitimate attributes, smallness of pattern and equal distribution, united to true taste in colour, are the well-known Swiss muslins; fabrics it is, for these reasons, a real pleasure to inspect in stock.

Chintz hangings form a class in which the design of the day is by no means felicitous, evidencing retrogression, not advancement: size of pattern increased to an ungainly extent, a correspondingly violent and harsh system of colour, the legitimate characteristics of the material lost.

In silks, the taste of the French is sufficiently celebrated. The English follow at a distance; much resorting to copyism of French design, and even regular employment of French designers. The present prevalence of large patterns, though these are often of much abstract beauty, is far from correct in principle, for reasons already stated. Too *naturalistic* a tendency is also characteristic of the French designs; too ambitious and irreflective an emulation; that is, of natural objects too little artistic conventionalising; a mimicking of nature where the range of representation is necessarily all-circumscribed. By the reverse system, a weakness can be turned into a source of power, of new and self-consistent excellence.

Among woven fabrics, in shawls, more beauty is daily encountered than in any other article of dress. The reason lies in the imitation of the Oriental models, induced in the Europeans in their successful contest. The French here, too, won the foremost place in the race. Though their excellence has been equalled by the beautiful products of British manufacture, French design takes the lead, as elsewhere—is in itself an immeasurable commercial advantage. According to accustomed subterfuges of trade, the best British goods are, as in the case of silks, to a great extent sold as French; thus dust is thrown into uninitiated eyes, and an unwelcome slight cast on British manufacture. The subservience of drawing to harmonious colour, and the employment of a restricted, effective system of outline—outline always analogous, yet variable—as the vehicle of colour, are very noticeable in the original models, just as in Oriental carpets. The futility of the European system of novelty-hunting is here made manifest; and the perennial freshness of a thing of beauty. None, it has been well said, tire of a Turkey carpet, or a Cashmere shawl, which have ever been essentially the same; who does not of two-thirds of the ever-varying apparitions of our European ribbons, or de laines? By systematic adherence to one good type of ornamentation, the fabricators of the shawl were enabled to produce beauty ever true, and to develop

all the minor variations of outline and effect. The practice contains a useful lesson for the Europeans. Fair ladies do indeed complain of the interminable repetition of the pine. But this is because it has, amid the customary aimless quest after novelty, been so preposterously obtruded on them—wrenched from the plan of which it was a part. In the best Indian Cashmeres and European imitations, this conventional form is simply the key-note, the ground-work, of other elaborate combinations; lost in them. In many of the cheaper kinds of shawl now prevailing, as especially the Barège, rows of these pines, though having no use or beauty save as the medium of colour, and of other forms, stand by themselves without colour or meaning: the prosaic, senseless parodies of a pure and beautiful original. A leaven of the fault, the over-definement of the pine, may enter into the better kinds. The opposite treatment is the *ideal* of an original Cashmere.

The carpet manufacture, like that of shawls, is of Oriental origin. During the last two centuries of rivalry, and with substitution of machine for hand-work, the Europeans have far enough departed from their models. While, with their mechanical resources and cheapened results, they have never equalled the technic value and marvellous durability of the Turkey carpet, they have established a fundamentally opposite and false plan of decoration—that of *pictures* on floors. In France, the manufacture, conducted on a grand scale in one or two favoured establishments, is, from a prevailing domestic custom—the retainment of ornamental wood-floorings—no nationally characteristic one. The French manufacturers have carried the pictorial system to the most vicious extent, so great and misdirected has been their ambition. The loss, again, of true principles of colour, is, through this ambition, the more egregiously manifested; violent, inharmonised combinations being freely resorted to. In England, this, like the other more recent branches of production, began to gain consideration at the beginning of the eighteenth century, when the polished, inlaid wooden floorings had gone out. It continued growing in importance till the present century, during which very great advances have been made in material. The beauty of texture, mossy and velvet-like to look and touch, characterising the better-class carpets, has its æsthetic as well as technic value. In general truth of decorative principle there is little to commend. The so obvious fundamental condition, flatness of effect, the marked characteristic of ancient and Oriental decorations of the floor—the Roman tessellated pavement, the mediæval encaustic tile—the Persian or Turkey carpet—is wholly violated. Fruits and flowers rounded off into approximate light and shade form the common stock in trade. Fruits are, in any case, inappropriate to be trodden on. Flowers, if represented, should tell their tale, as *only* represented, and on the floor, not as on a wall: then they might be suggestive and pleasing. On the same terms, similarly conventionalised, and with reference to their destination, not denying their purely decorative nature, other subjects demanding moderate attention from the spectator, are admissible. Smallness, simplicity, and equal distribution of pattern, are indispensable—especially when the greater portion, as in an English sitting-room, is covered by furniture—for the eye to apprehend the design; a part standing for the whole. But sprawling, disconnected patterns much

prevail. The cheaper sorts of carpet, having geometric devices, though not over-burthened with æsthetic beauty, often unmeaning and mechanical, are less incorrect in principle than the ambitious, where so much is attempted, better left unattempted. Flatness and concentration of effect are wanting in these also. In colour there is great inequality; anything like the rich harmonies of the Oriental carpets is never approached. But from the less pretentious, more sober effects, there is a wide range up to the most glaring, gaudy, and costly. In truth of gradation, matters have not been mended in the tapestry carpets, with their extended scale of hue. There is more room to err than in the Brussels carpets, with their half-dozen colours. The claims of exceeding brilliancy and superficial attractiveness cannot be denied. There has been a parallel development of the defects of the old carpets—pretentiousness, largeness of pattern, pictorial attempts at light and shade and roundness of effect.

In most other woollen fabrics, design, properly so called, has small part. The male creation of Europe has long discarded decorative aid to its external appearance; trusting to intrinsic merit, to the sober claims of mind and pocket, or to the personal charms surviving external disadvantages, softened by a kind of prim foppery and neatness of toilet. The last traditions of taste as to design in its bearing on costume are in the keeping of the ladies. In the whole male wardrobe, the sole vestiges of 'decorative art' are traceable sometimes in the waistcoat and nether-garment. In the former, there has lately been a movement towards a little actual decoration. In the latter, the approximation is of the most inartificial kind—a few neutral colours and a few straight lines, striped or crossed. It is an instance of the little thought vouchsafed to such matters, that rational men could be found to walk about with limbs disfigured by a series of broad, party-coloured bars running at right angles to one another. Yet the most sane men may have been so seen. Every one of us, in fact, was liable to the innocent adoption of this barbarity when it 'came up,' and so making a monstrous network of his body. Such lines, not to speak of their ugliness, destroy the whole character of the human form. All check-patterns are in themselves, unaided by harmonious colour, mechanical, and devoid of beauty. Ladies seldom fall into such egregious blunders. They instinctively understand too well the becoming. They are fond of 'stripes,' because they assist the effect of height; though a like result would belong to the stripe translated into graceful curves. Striped patterns, wherever occurring in a dress or a paper-hanging, fall under the same category with checks as to inherent lack of art or beauty—an absence of beauty characterising in general all straight lines, just as distinctively as does its presence curvilinear ones. The latter form the attribute of every portion of the human form itself: a significant fact. Stripes are more admissible, however, than checks; being true to the leading lines of the body, and suggesting them, instead of clipping it into fragments. Even in ladies' dress, there is at present a strong inartistic movement: the recourse to undecorated garments, 'polkas,' &c. in which all the character is given by, and half the cost lavished on, the milliner. Fashion is indifferent to this circumstance; the more or less art, the more or less intelligence brought to bear in the satisfaction of her demands, elicited in the toiling multitude. Unfortunately, the empty-headed tyrant unconsciously sways the destinies,

creates or mars the prosperity, not only of the decorative arts, but of manufactures themselves, and of whole classes of human beings.

To the majority of our day it must seem a puerility to attach importance to dress, to look for art in such quarters, or concern ourselves for the lack of it. Yet real art has been displayed in the costume of all times and nations save the modern European—the classic, the mediæval, the Oriental. Some distorted attempt at it may be recognised amid the shabbiest disguises of humanity of a London crowd. Is it not a point worth consideration, whether we practically accept a make-believe, or a reality, in its way?—whether we go about labelled ‘failure,’ ticketted with nonentity and ugliness, incongruity with nature; wearing the emblem of some sordid and inane idea; or whether the decorative symbol be suggestive and consistent? The dearth of thought, both in producer and consumer, is here, as everywhere, the source of all mistake, and folly, and loss.

Of other textile manufactures, a few words remain to be said.—First, as to lace; a century or two ago a costly rarity, now an every-day adornment. The grace and delicacy of effect of the material are its legitimate and most striking beauties. Independent beauty and coherence of design are compatible with them. Both in the hand-made and machine-made lace such real design occasionally occurs. In some of the machine-made, where something better is attempted than imitation of the hand-made—a false and vicious system—a style adopted specifically characteristic, there is much to praise in appropriate and pleasing flatness of effect, and beauty of design based on this attribute; a style essentially distinct from the thickness and richness of the old hand-made, and having its own claims.

In the linen manufacture, designs for damask are at no high standard with us, either in prevailing decorative ‘motives’ or special treatment. Foreigners have the advantage; in design and quality of material. The manufacturers of two hundred years ago were still more before both.

Potttery is a manufacture not so commercially important as that of textile fabrics, nor educing equal activity in design; yet it is one peculiarly favourable to art. No article produced, however simple, but may evince decorative treatment, or artistic feeling, in its *form* at least; art may be part and parcel of it, so far. And this attribute, form, is often not given by mechanical agency, but is the direct result of human dexterity.

The decorative constituents are two—form, and surface-ornamentation. The first is the fundamental, imparting the leading character. In perfection of form alone, sufficing beauty may be realised.

We have alluded to the especial glory of Josiah Wedgwood—the union of improved material and colour, with the development of an æsthetic element. The round of the antique forms was exhausted, and the æsthetic aid of that greatest of English or modern sculptors, John Flaxman, required. It was Wedgwood’s misfortune—the inevitable sequence of the peculiar condition of modern design—rather than fault, that as to form, no more than copyism was done. Nothing better, has been reached since, only greater license in departure from the antique models and from the natural standard of beauty. In the æsthetic phase, the manufacture has remained much where he left it, in some points, rather, has retrograded;

though just lately there has been considerable and laudable activity. Copies of good things have divided sway with copies of bad. Copyism it is, still, which 'brings in all that's fair:' reproduction of the antique or of Oriental forms. Settled principles of design we have none. We have no philosophically-artistic study of beauty of form, in one given route; no independent pursuit of the general principles of æsthetic truth of line; such, as in other times and nations, resulted severally, in antique, in mediæval, and in Oriental art; in the attainment of systems of form, all genuine, each distinct from the other, and characteristic.

There are two kinds of acceptable form: æsthetic perfection, and expressive character. There may, too, be the union of both. In Greece, this union was, in all art, nearly equal. In the middle ages, character was the dominant attribute. In Etruscan and Grecian pottery, we have the deepest, most refined visual melodies, so to speak. In Oriental pottery, and in mediæval decorative forms generally, we have harmonies, lower, as to mere æsthetic perfection—that definite completeness the Greeks realised everywhere. Oriental forms are sometimes of mixed truth. The mediæval have equal or even more striking suggestiveness than the Grecian, a prevailing idiosyncrasy, as eloquent and unmistakable as belongs to the architecture of the time. The natural development of forms, simple, but true in feeling, in all early potteries, whether of the rude South-Sea islander, of the aboriginal Mexican, or the ancient British occupiers of our own land, is a remarkable fact. In modern forms, reigns mere anarchy, the abrupt transition from harmony to discords. In the potter's work, pre-eminently, the intrinsic æsthetic claim, as distinguished from that of *character*, is confined to lines curved and flowing. Such lines prevail in Oriental China; though straight-lined combinations occur, judiciously managed; as again, in all mediæval decorative forms, subserviently to those other claims of which we have spoken. There is in our pottery the ample use of straight lines, to meet the insatiable rage for 'novelty;' while the curved forms of the classic models are often inharmoniously adapted, through mere bluntness of taste and the absence of controlling principles.

Still, the adoption, more or less modified, of good models as a basis, has dictated the general forms of our pottery, to an extent scarce now to be adequately apprehended. In tea-services, the Chinese gave us not only the beverage, but the material and form of the vessels to contain it. In many familiar earthenware and porcelain articles, dishes, plates, &c. the purpose has dictated the form; with much of that success which obedience to the demands of utility and common sense, without farther attempt, insures. In the remainder, antique forms have had their all-powerful influence. On the other hand, in all these classes the unaided fancy of the designer and spasmodic efforts at novelty, have been the fertile source of many a failure. Attention to form, however, has been a welcome feature in the progress of the potteries. Our general characteristics in form may be summed up as, a lack of any one style of our own, or rule; a conflict with types uncouth, unmeaning, and contemptible; and a leaven—with importation from one trustworthy quarter and another—of much that is

In surface-ornamentation there is less to applaud. An original or consistent system here, too, there is not. Little available for ordinary

purposes was to be gleaned from good models. The examples in ancient pottery were of too high and costly a description. The Chinese patterns were nothing without the harmony of hue, of which they were the medium. Their bad drawing and grotesque features were not in any case desirable for adoption. The history of English ornamentation of earthenware and porcelain is in great part a strange eventful series of barbarities: concatenations of incongruous objects, and medleys of copyism; assisted by primitive drawing and ineptest rendering of nature. The progress lately made has been unequal. Elaborate mistakes every way, unmeaning combinations, defiances of nature, abound. The extraordinary part pseudo-pastorals and inconsistent 'made-up' landscapes have played, in this section of the furniture of an English home, is well known. They still hold sway; in conjunction with variations on Louis Quatorze and Quinze, Moresque, &c.

In earthenware, the 'willow' pattern, now dying out, introduced towards the end of the last century, is among the most remarkable ever in vogue; for diffusion and continuance. Its success was not without cause. No general popularity is. The pattern, though a mere parody of Chinese perversities, had great utilitarian merits: in its equal covering of the surface, distinct adjustment of design to the separate parts—rim and centre—and absence of pictorial pretence. Most of the better designs now current, more correctly drawn, and sometimes of considerable taste, err in these particulars—lack adaptation of design to the special purpose. As the designers have grown more ambitious and 'artistic,' they have become less attentive to the demands of decoration *as* decoration. A system of ornament, properly so called, strictly confined to its decorative office, assuming to be nothing else, while having in that individual beauty, is unknown to the best modern design.

The fashion of aping *pictures* more or less pervading our manufactured design, shows itself very prominently when we come to the finer, more costly porcelains. Too much is attempted at once in all modern decoration. Herein is one secret of the variance in genuine success attending the Oriental, and the best of the European efforts. The designs of the Dresden and Sèvres china, when not copies of the Oriental, purport to be 'complete works of art,' pictures in pottery. They cannot rival an actual picture, yet miss the effect proper to the material; result in being neither one thing nor the other. The Chinese 'set light and shade and perspective at defiance;' but in harmony and vivid beauty of colour, and due subordination of pattern, produce an effect consistent with the material, and in itself contenting. In the Dresden and Sèvres, the Oriental harmony is by no means equalled. Just in the most ambitious attempts of the latter the worst success is attained—the *harsh, false effects*. We have triumphs over technical difficulties, but not ing enough; that is all. The English, who have followed the *pictures*, have not been more successful in development of true *character* or refined colour. But they never have fallen into the *gaudiness*, the overloading with alien matter, of the more costly Sèvres; where, sometimes, the material is scarce to be recognised, for gilding and pretence.

The vivid feeling for colour of the Oriental *as* pre-eminent here as in

their other manufactures. Similar feeling, fresh and living, is to be noticed in the earlier European pottery—the enamelled wares of the sixteenth century. The Majolica, though pictorial rather than strictly ornamental, and its subjects those irrelevant classic ones for which a *furor* then prevailed, was characterised by high æsthetic beauty; sometimes in drawing, always in colour, with its peculiar rich, brown and golden hues.

The literal English reproductions of Oriental china, of Sèvres, of Dresden, are somewhat pitiable. As in other directions, we rival the fabric, the technic qualities of the foreign article, but servilely affix the foreign design trade-mark; so as surreptitiously to represent, instead of self-reliantly competing with it. The repetition of the mere outward guise, as well as material excellences of a successful manufacture, is a singular evidence of æsthetic supineness—of the divorce between technic and æsthetic ability. The repetition can, as to art, never have more than a factitious, second-hand value. Where, in articles of show, vases, &c. the continental products are not imitated, classic design is reproduced. Etruscan vases, Etruscan and Grecian types of ornament and subjects, in new applications, have been repeated from Wedgwood's day downward, for modern edification; without reference to the original purpose of these things, or modern exigencies. Even the beautiful original designs of Flaxman were at fault in this particular of *subject*, considering a modern European was addressed, not an ancient Greek. Original design is, however, under any drawback, a far different, more living thing, than mere copyism.

In our ambitious attempts, then, from the cheapest chimney-ornament up to the costly vase, we have spoiled pictures and literal reproduction: beginning with copies of popular sentimental pieces, and ending with the antique. In some directions advance has been made. Original designs for the common wares and ordinary china are encouraged, and are progressive in character. In several, for articles of common use, a leaven of direct reference to nature has been introduced, started by the 'art-manufactures' of Felix Summerly: reference to nature, of value, as a step in the right direction, though over-'naturalistic' in these particular instances.

The new applications of porcelain, for chimney-slabs, tiles, &c. form a feature in recent movements. They have been successful in eliciting felicitous design and novel beauty of effect for purposes where the very reverse of anything artistic or pleasing had been usual. It were well should geometric, purely ornamental designs predominate in the slabs rather than pictures: pastorals, festoons of flowers—scarce appropriate to the vicinity of a fire—and æsthetic abominations, like ribbons and baskets.

An important auxiliary in the diffusion of art are the new inventions of material: 'statuary porcelain,' 'parian': improvements on the old 'Bisque' porcelain; in appearance approaching marble. They are pre-
 pare for still further discoveries, whereby the evils in the pre-
 the shrinking of material in the furnace, are to be obviated.
 demand has been created for artistic refinement through these
 the homes of the middle classes. The opening is capable of
 being turned to high account in the cultivation of a purely artistic manu-
 facture. Success depends on two conditions—the subjects chosen, and
 their execution. Some among those selected are of true artistic worth;
 especially Bell's *Dorothea*. Many recent selections are the very reverse

of satisfactory. We have copies of French pictures and statuettes, not deserving wide publication; in subject and treatment of a debased style: mere sickly prettinesses and sentimentalisms; and nude female figures, whose only recommendation is their nudity, having none of that purity of feeling or refinement of beauty alone rendering such representations acceptable. Instead of profitably enlarging the influence of the true and the elevated, as by the Dorothea, the manufacture thus diffuses what is low in art, as well as poor and depraved in meaning. Unhappily, it would seem the complexion of public taste itself, as in the case of popular engravings, which is pandered to. It were to be wished that not only copies of the best works of English sculptors should be given, but still more extensively, original models of them specially commissioned. The nature of the material would here be considered; a new opening for art created; and a class of subjects fostered in sculpture, addressed to the sympathies of our age and country—a desideratum indeed! On the execution, the workman's knowledge and skill, especially in the finishing, depends much of the final effect. The inevitable difficulties of the process are great. But in the niceties, the joining of the separately cast pieces, and the like, exists fair room for improvement: improvement only to come through the education and more refined feeling of the workman.

The revival of encaustic tiles for churches, public buildings, the halls of private houses, has been successful; in the mechanical process and decorative constituents. The admirable Gothic models, true to principle in flatness of effect and simplicity, have been reproduced. Geometric patterns prevail. It would be gain if this beautiful manufacture superseded the modern one, strong in its cheapness, of floor-cloth: a disagreeable material; the designs ordinarily devoted to it still more unsatisfactory. These are mostly, with their absurd imitations of marble and stone, poor, tautologous, false in principle. The geometric patterns are of course better; but no wasteful lavishment of taste or invention is traceable.

The manufacture of figures and other ornaments in terra-cotta, recently revived, has been carried further in France than in England; but with success in the latter country as to durability of material—in all manufacture the Englishman's strong point. In original design, little has been done. We should mention, however, the noteworthy application of this material to a modern Gothic church in Lincolnshire.

Ornamental domestic *Glass*, in which so great perfection, artistically speaking unrivalled, was attained by the ancients, was not a characteristic mediæval manufacture. Its European revival belonged to Venice, followed by Germany. In both countries, much technic excellence and artistic beauty in form and engraving were attained: during the sixteenth century in Italy, after some ages of practice; in Germany, with great access in development of colour, early in the seventeenth. The English cult of the manufacture to any important extent was late. Till the last years it laboured under the severest government check. A more liberal course, however, has all along been maintained.

Stained glass, on the other hand, is an art, in its glory as characteristically mediæval, as perfect pottery is antique. It was reduced to the lowest ebb during the last century, but has of late revived, so far as imitation of the old remains goes. In mere technic qualities, of beauty of hue, there

is still, not to speak of design, great shortcoming in our imitations. The unsuccessful modern refers for explanation to the coarseness of the old glass, here undoubtedly of value, and to be reproduced; and to mellowing influences of time, dirt, and decay. This latter is a plea least of all calculated to explain all things; akin to the notion of some connoisseurs of 'tone'—that is, dirt—in old pictures.

In domestic glass, similar importance attaches to *form* as in pottery. Engraving offers a more restricted range of surface-ornamentation. In development of colour we have greater difficulty, and greater beauty when attained; in transmutation of form and substance through cutting and frosting, effects peculiar to itself. The mere material has in its transparency and brilliancy an æsthetic charm which bad design may injure, but not destroy. The excess to which cutting is at present carried, interferes with the former property, and with general outline; confusing the eye. It substitutes effects dazzling, but often surprising rather than pleasing.

The variety of forms manufactured is great. Types borrowed from the antique, or indirectly from the Venetian and German manufactures, have exerted wide influence on articles in daily use. Many familiar forms of wine-glasses, jugs, &c. are of considerable beauty, coming of a pure stock. In others, as of decanters, the educating an æsthetic charm from the utilitarian purpose had, till lately, been unattempted. Purely ornamental articles present effective reproduction of the beautiful antique forms; reproduction mostly literal, sometimes as the basis of others. Any prevailing adherence to defined principles no more exists than in pottery. The late stimulated pursuit of design has been loose enough; as often directed to straight-lined and *outré* as to curvilinear and refined forms. Novelty has been the too influential aim. In the long-run, beauty and truth are not to be hit upon; must be patiently, intelligently worked out.

The chandelier is a feature of modern manufacture, in which, with the purity and brilliancy of their crystal, the English are pre-eminent. In it modern design has had to rely on its own resources; and, following the requirements of the article, been tolerably successful. In few other cases have the peculiar beauties of the material been so adequately developed. The union of refined form—refinement capable of being carried much further than it is—with the utmost possible eliciting of the grace natural to these suspended masses of light, the full emphasis on their leading characteristics as such: herein consists the province of the designer.

The range of surface-ornament by engraving admits of very delicate beauty. The most successful English design is that occupied with simple forms, imitation of natural foliage, &c. The conditions of the material preclude exaggeration, and such subject educes character strictly ornamental. To the costly work, where picture-like effects and the human figure are introduced, a sufficiently high order of art has not been applied. The simple kind of engraving—that on window-glass—good decorative effects have been produced, at a cheap rate. Its domestic use might be immeasurably extended. Concealment of outlook, where desirable, is obtained by it, ornamentally and agreeably. Not so pretentious as stained glass, success is more within the manufacturer's reach.

The inferiority, in depth and brilliancy of hue, of the English to the continental coloured glass has been stated. *Subject-painting* has been little

cultivated. Recent advances have been made, and pleasing effects produced, with copies from the antique, the Italian and modern masters.

In the useful *metals*, decoration includes treatment of general form, and superaddition of surface-ornament. *Æsthetic* beauty is to be deduced from utility, or engrafted on it; consistently with, and suggestive of, special character. Such are the primary ends of ornamental design in this direction distinctively, as more or less strictly everywhere. In the hands of true artists, or where a right system pervades industrial design, the decorative attainment is never incompatible with the utilitarian, nor the union a difficulty. Where such system does *not* exist, the sordid repulsiveness of utility divorced from beauty results; or in the spasmodic attempt at their union, the former is lessened, the character of the decorated object falsified or concealed, fitness neglected, reality lost. For *æsthetic* effect itself, the expression of utility must be preserved, as the *root* of it. In the beautiful examples of mediæval iron-work, these principles are illustrated affirmatively; in modern, negatively. In the former, utility was never denied or injured, but always expressed, however elaborate the ornament thereon grounded. And on the rudest work character was impressed, by combinations of line—the mere grouping, perhaps, of nails on a door—pleasing and suggestive. In their ornamental work we see also, contrary to much of modern production, a style adapted to the materials: thinness, flatness of surface, and consequent *relative* lightness and grace of effect.

The modern English, while excelling in the mechanical, had forgotten till late years the decorative element, contenting themselves with occasional meagrest apologies. In French work, there is, as to detail, genuine beauty of design and workmanship; in the general aggregate, something very *ungenuine*. The union of utility and beauty is mostly mechanical, not essential. Fitness, the soul of all art however 'high,' is ignored. Works of art are *tacked on* to works of utility. One idea is lost amid a host of conflicting ones. We, who of late have been following our neighbours, have not escaped their faults. We have not proceeded to their extremes. Our practical sense will not allow us in the long-run to commit the solecism of abjuring utility in attempts to be 'artistic.' Still, to the endeavour at imparting a decorative aspect to our works in the baser metals—iron, brass, &c.—fidelity of character and directness of expression have been strangers. Our system is the reverse of the ancient, the mediæval, the Oriental, or any other which bore good fruit. Instead of an article being *itself* ornamented, it must be, if 'decorative,' *something else*. A curtain-holder must be a flower, a fender a pastoral, a letter-weight a dolphin, the back and elbows of a garden-chair a snake, and an inkstand be transmuted into various strange figments. As for the poor worm-out mermaid, her soul must be daily undergoing a fresh decorative transmigration. This system had its beginning during the sixteenth century 'Revival,' then counterbalanced by very exquisite and executive refinement. It has come to a head at the present day. It is *so easy*, compared with engrafting decoration on undisguised features, eliciting an unforced beauty and character proper to the article; and for surface-ornament, employing a well-elaborated range of conventional forms, refined and suggestive.

The present change in decorative intention is preparing the way for

something better, though only amounting as yet to imitations of this 'style' or that, combinations, or unintelligent using up of stock forms. There is still work where even this change would be for the better. In second and third-class grates, stoves, the most sordid pretence at ornament is *stuck on*. In the more expensive, there is free recourse to non-descript, to Louis Quatorze and Quinze, not to speak of *pseudo*-Gothic puerilities.

In some technical requisites of artistic effect we have advanced, by calling in aid from science. In iron-casting, æsthetic beauty much depends on mechanical causes, exactly determinable by chemical experiment; the sharpness of the casting on the degree and kind of fluidity of the heated metal. The beauty of the ornamental Berlin castings is well known. Foreign castings of late have been competed with by our own, especially those of the Coalbrook Dale Company, which body has signalled itself by its efforts at decorative character.

We would here refer to Mr Pickett's system of iron-construction. Hitherto, the large use of iron has been accompanied by little true design: sordid ugliness or miserable disguises have been the rule. The interior of the London New Coal-Exchange is a noticeable exception. The series of balconies, and supports of the roof, all iron, are undisguised, and possess appropriate character. Perhaps some other colour or shade than the white adopted would have been preferable, the more unmistakably to distinguish the material: otherwise, the general effect is unexceptionable.

In brasswork, Birmingham has long been famous, for utilitarian and economic capabilities. In design, the French tendency above alluded to is the predominant. *Bronze* has in England played a slender part. The production of ornamental castings has been engrossed by Paris, and there carried to a great pitch of perfection and on an extraordinary scale. A disposition has shown itself to attempt something for ourselves. In technic regards the French might not long hence be rivalled. The numerous skilled art-workmen, modellers, chasers, &c. by whom the chief value of the Parisian bronzes is conferred, it would be no easy task to get together.

In cutlery, so important a manufacture, wherein our technic perfection is noted, *design* can scarcely be said to have place. The modern English practice would imply the incompatibility of an æsthetic side; contrary to the evidence of mediæval, of Oriental work, where so much exquisite ornamentation occurs, of weapons, knives, tools, locks, keys; and, in the plainest examples, beauty of form. The stern utility, however, of English work has a more genuine character than mere pretence could give.

In gold and silver, that defect noticed in all modern metal work—the making utility and art separate things, instead of one organic whole—becomes especially prominent. In costly examples, the system is one of sculptured pictures; of miscellaneous incongruous combinations. We have groups, human or animal, affixed to the cup or centre-piece, with no real connection, little germane significance. The province of the sculptor in less costly material is illegitimately invaded; and effects emulated which the material itself, with its glistening brilliancy, its legitimate attribute, forbids. The fundamental principle, that every material requires its distinct treatment, a decorative language of its own, is ignored.

For surface-ornament we have copyism, sometimes mixture, of traditional styles—Renaissance, Louis Quatorze and Quinze. Of the two latter, with their unmeaning curves and scrolls, it is painful to see the prevalence. More or less they enter into every province of design; make their appearance now in a paper-hanging, then on a porcelain cup; now again in metal-work—above all the ordinary stock in trade of a goldsmith, whether solid metal or plated and Sheffield wares. Their tyranny is here complete. The technic skill of English workmen in gold and silver, with their nicety of finish, is celebrated. Where modelling of the human figure has place, there is demand for improved education of the art-workman, and more definite evidence of knowledge of his subject and artistic feeling.

In plated goods, while the obtrusion of bad styles is the same, the technic beauties of execution, of works in gold and silver, are of course missing. By the electrotype process, however, with its perfect accuracy of reproduction, great beauty of effect and refinement of finish are attainable: all depends upon the original model.

In jewellers' work real design scarcely exists. The prevailing 'modes' are meretricious and irrational.

As to *form*, it is in gold, silver, and plated work, as in the other metals and all modern manufacture: when having no guides, or neglecting them, the requisite principles and refinement of feeling are wanting. As for the difficulties of a tea-pot, or an urn, they seem insurmountable by us. Even in so easy a subject, for which good models are numerous, as a goblet, there is unequal success. Everywhere, if not frightful, our forms are tame, overloaded, or broken up; inharmonised into unity. From so simple a matter as a spoon, ability for developing refined harmony of line and proportion does not exist. In the more elaborate candlestick or centre-piece, instead of clear enunciation of the structural features, and subservience of decoration thereto, there prevails indiscriminate addition of ornament everywhere, and combinations without plan or meaning for a whole.

The numerous uses of *papier-maché*—even within the present century confined to tea-trays—its aptness to design, the elaborate attempts made in it; all conspire to render the manufacture an important one in reference to decorative art. It is divided into two distinct classes of application—articles of furniture, and architectural decoration. In its many adaptations under the first, to tables, desks, screens, &c. it has great claims; in its durability, lightness, pliability, and susceptibility to surface-decoration. The manufacturers have been blamed for the gaudiness into which their plastic material has led them. This should be changed into brilliancy. It is harmonious combination that is demanded, not neglect of a legitimate attribute. An example of the capabilities of the material are the recent sparkling imitations of inlaid gems. As imitations which can deceive no one, they are innocent. If pursued with taste, and feeling for colour, unexceptionable beauty in brilliance of effect might result.

A manufacture this peculiarly modern, there has been individual success in its decoration; in the flower-painting, grace and effectiveness. Flowers, perhaps birds, and some kinds of *still life*, are appropriate to the material; successfully produced, adapted for repetition, and approaching in character the strictly ornamental. The prevailing error is the resort to *pictures*. Instead of simple decoration, or superior design specially adapted, we have

copies of popular engravings, sentimental or otherwise; of which there is, without this further echo, a surfeit. Any true feeling in the decoration itself is precluded. For the buyer, remains the daily-nauseating influence of a tale mechanical in the telling, and stale in itself. Manufacturers and the public have yet to learn it is no literal, necessarily inadequate repetition of some other work of art, but expressly appropriate designs, unobtrusive, yet suggestive, which deserve the name of decorative art. The suggestiveness and agreeableness of a mediæval tessellated pavement or Oriental vase, we do not exhaust with familiarity. These never make too great a demand at once. But the significance of the mechanical copy of a sentimental or pretty picture is exhausted the very moment we see it. It needs all the impress of genius, of the *living* hand, in an original *good* picture, or the faithful shadow of it in an engraving—itself instinct with a certain new life—to render either suggestive daily companions. Aught less will grow dead indeed. Where anything like a picture is attempted in a manufactured article, a very high pervading manner of art, as in a Grecian vase, is required, and a range of imitation of nature restricted to the particular vehicle of expression; or some other peculiar decorative excellence, as in Oriental china the vivid harmony of colour, and stamp of distinctive character. Papier-maché is a manufacture which has made great progress. It is a pity that decoration should be pursued on a wrong track. Turning from surface-ornament to *form*, little can be said. The material gives the designer much license. The result has been a series of forms, mostly capricious and unmeaning; sometimes mutations of the Louis Quatorze, &c.; always insubordinated to æsthetic rule.

In papier-maché applied architecturally the perils of facility become graver. The aid it, and in lesser degree carton-pierre, supplies, would be legitimate were a distinctive character developed: these materials wearing a recognisable decorative stamp; not used in make-believe of other substance, and imitatively of 'styles' characteristic of the latter. But we have sham-classic, Gothic, Elizabethan work; sham-stone mouldings and tracery; sham-stone pillars: all in papier-maché, carton-pierre. For the present is the age of shams; at all events in architecture. The one idea suggesting itself to our minds after making a mechanical discovery, is, how to turn it to profit as a *sham*? And so the system does not exist whereby these light materials might tell their own tale; one naturally graceful, and in its kind effective. Partly inevitable is this, from the unfortunate condition of modern architecture. Were it sound, such a state of things could not be.

Used without disguise, these materials are admissible, in all private houses where a more solid system of architectural effect has not been supplied. In ceilings especially, if more than a blank surface be desired, since that period in the last century when hand-worked plaster ceased, which was synchronous with the universal relinquishment of hand-work, substitutes mechanically multiplied have been necessary. Tasteful, well-executed designs in papier-maché, or composition, obtained from a good manufacturer, adapted to the room and its proportions, enhancing size or height, or diminishing either, as the case may require, are immeasurably preferable to the coarse plaster ornaments which generally occupy their place. Designs of great merit, graceful developments of ornament adapted from nature,

are produced. The use of colours specially appropriated, single or varied, is an essential constituent not adequately studied.

The characteristic of modern art, as of so much modern life, is the absence of self-reliance. We cannot appear what we are. Our new materials, facilitated processes, are thus turned to questionable account. One substance is aped by another; the decorative language proper to one production mimicked in a different. The recently-improved manufacture of stamped leather, for furniture, decorative panelling, &c. characterised by much beauty, boldness and precision of outline, is another instance of this. Instead of suggesting leather, in colour and effect, the chief glory is considered to be its successful representation of wood—of an Elizabethan cabinet, or what not. For extension of the resources of design by new appliances, its healthful life is crippled; reality and truth daily more foregone. Why should this be? Why should not papier-maché look *like* papier-maché, carton-pierre like carton-pierre, stamped leather like stamped leather, cast-iron like cast-iron; each putting in its claims as such? Till this be, no true life is possible for decorative art in these departments.

Wood, a substance apt to the hands of the artist, receives small treatment from him now in articles of general use. English design in its relation to cabinet-making is at a low ebb. In the middle ages, art was as apparent in the outline and ornament of the simplest chair or chest, as in the elaborations of the goldsmith. Throughout the sixteenth and seventeenth, till the beginning of the last century, an artistic spirit was still manifested in the more grandiose domestic furniture of the English gentleman, though in far less pure and beautiful styles. In France, after the sumptuous half-caste art of the Louis Quatorze and Quinze, came a brief 'pure Greek' mania; then the present specious copyisms and combinations of former styles, with a leaven of the usual naturalistic, fancifully original design. In English costly furniture, there is the haphazard conflict of all forms, models, and fashionable imported 'novelties;' in the ordinary run of furniture, stern ugliness or insipidity. The implicit repetition of Louis Quatorze is dying out. A blank occupies its place. As for studious artistic development of refined forms, *that* is a thing undreamed in the cabinet-maker's philosophy. Such degree of prosaic character attention to utility insures, there is. Whatever of the decorative element has place in it, and some necessarily must, is all uninstructed rotting—the laying-on ornament, and shaping routine meaningless forms, without thought or feeling, according to mechanical book-precedents, established authorities of confusion. The poverty of design in the artificers themselves is complete.

The remark applies to the 'carver and gilder,' the workers in ornolu, &c. Nothing can be more overworn than most of the current design, nor more mechanical than the way of using it. In picture-frames, plain gilding would possess infinitely more intrinsic beauty and relevance than two-thirds of the stereotyped repetition of scroll-work, disconnected curves, &c. daily multiplied. Variations of copyism, and some recourse to natural material, form the remaining third. Whatever the ornament, it is laid on, not specially adapted. Papier-maché and gutta percha offered room for new effects, not turned to due account. Failing beauty, attention

might be given to the requisites of the special design, such as unity of purpose in the bounding lines of the frame, and a connected whole, instead of aimless patches of ornament at sides and corners.

Buhl is a costly luxury, antiquarian in design; the ornamental forms traditional; the effect attractive, if its production be not very intelligent.

Exceptional efforts at design characterise recent cabinet-making, as every other manufacture. The extended application of wood-carving is a promising opening for the development of art. Very beautiful works of second-hand design have been produced, necessarily costly. For Gothic forms there is a growing taste. In the diffusion of decorative character machine-work may prove useful, especially in the simpler articles. For these some degree of ornament adapted from nature may be produced at a much smaller cost than by hand-work.

Of wood-carving by machinery two processes have gained attention: the one known as Jordan's Patent is the less exceptionable in principle. The finishing is performed by hand; thus some direct human agency preserved. Where much space is covered, tameness is unavoidable, from the prevailing uniformity of surface: in place of the freedom and variety following hand-labour, that 'bright strange play of the living stroke,' not moving with the precision of mathematic law. The machinery literally *carves* the wood. The fidelity with which the main form and leading lines are wrought is marvellous. Something weird is the aspect of the blocks, fresh from the machine; with their ghostly reality, kin to the creation of a human hand, all the work of blind, inanimate agency. The works of the Wood-carving Company are produced by heat and pressure; the carved impression by a die, without after hand-labour. The object of machinery, in lessening cost, is not always attained by these processes; only in case of great repetition of one feature, or, less inconsistently with true art, by multiplication of the whole work. In Jordan's Patent, the pecuniary advantage of machinery tells in simple forms. With intricacy of pattern, too much finishing is required. In the other process, it is exactly the reverse. The cost of the die is too great for profitable execution of simple work. As to the æsthetic bearing of machinery, here, as elsewhere, it brings us gain in accomplishing the mechanical; loss, in its substitution for human thoughtful labour, the fresh impress of the living hand.

The revived wooden bread-platters, potato-bowls, &c. have elicited felicitous application of wood-carving to ordinary uses. The original platter of Mr Bell's design was the successful parent of numerous others, executed by hand and machinery.

Another revival is of inlaid woods for flooring—'*parquetage*,' as termed in France. Geometric patterns form the appropriate field of design. Good ones are in use. The English are too wedded to the carpet, with its warmth and comfortable aspect, to return to *parquetage* in the sitting-room. For hall or public building, a combination of different-coloured woods in geometric device is effective. Where the cost is no bar, *parquetage* or encaustic tiles should take the place of our ugly, ill-joined public floors, and poor private substitutes for ornamental air-tight floors, when carpet is not used.

Marquetry, in furniture—inlaid tables, &c.—has also gained ground.

For surface-ornamentation nothing can compete with it, as to richness and harmony of effect, and durability: the ornament an integral part of the substance—the most coherent and secure decoration of any.

In book-binding, the costly works of the middle ages, on which so much precious art and material, gold, ivory, jewels, were lavished, mark the prevailing devotion to art; and times, when books were the rare, prized possession of the prince and the religious body. Of the sixteenth and seventeenth centuries, examples are more akin to our own: leather largely employed, decorated with geometric and arabesque patterns. After dwindling to insignificance, rude simplicity, book-covers have lately advanced. In some directions, much activity exists. Cheap literature has drawn to itself cheap design for the external book, whether silk, cloth, paper-boards—quasi bindings unknown to the continent, where paper takes their place. This employment of designer by publisher affords scope for obtaining a good design, and its due influence on the public, through the extent of its application. Some degree of decoration is now generally adopted. Ornamental covers are used where plain roan was twenty years ago. There is room for farther development, both of its amount and quality. The variation among publishers is great in attention to the matter.

In leathern bindings, our technical excellences of finish are considerable. Ordinary second and third-class bindings have little design, properly so called: mechanical repetition of stock receipts, disjointed patches of ornament at angles and corners. In the higher-class, where original design is called in, we have, as in cloth covers, plenty of eclecticism and reproduction. Modified fragments of ideas from the arabesques of the Alhambra form an especially favourite stop-gap of a style. Adaptations from nature—foliage, &c.—there are also. The designs of Owen Jones deservedly stand high for originality and effective development of natural material.

In this selecter class of leathern bindings, and in the temporary book-covers, design of much merit occurs, in some measure original, though frequent meretriciousness and wiry unmeaningness. Even in the better designs we often find the pattern broken up—a concatenation, rather than a blending, of parts. The management of the lettering is a constant stumblingblock. There are three requisites in book decoration—lines intrinsically harmonious, general unity, appropriateness.

Some ambitious attempts have been made in wood. The effect is blotchy and confused. A relieved surface is not here the most in keeping. Smoothness and flatness form the desirable attribute of a book we handle. A design purely *decorative*, not aiming to be a work of art on its own account, independently of that whereof it is the garment, is essential.

In imitation of the sumptuous mediæval works, use of ivory, velvet, enamel, and other costly adjuncts, the Parisian houses assert dazzling claims, decorative and executive. This must be considered an exceptional class. Those in which the English excel are those germane to present literature, and the more important, in their wide diffusion and influence.

Paper-hangings form a decorative manufacture among the most important, through its extensive use. Like most now developed on the largest scale, it is substantially characteristic of our own time. Its first beginnings are unknown. Before the seventeenth century, it was of small importance. It gradually displaced the more costly tapestry of the rich; later, assumed

the part of covering the bare walls of the poorer classes. Before the end of the eighteenth century, the English manufacturers took an important position, for material and design. The story of recent French superiority is well known. In the main qualities of *material*, the English are equal to their rivals; in cheapness, superior. In design and finish, the French have the confessed advantage, to a degree paralleled in few other instances. The ability in drawing, the harmonious gradation of tints, their tasteful selection, are points in their best papers, felt by all. It is not in design the greatest English shortcoming lies, but in artistic execution. That want of art-workmen every branch of English manufacture has to lament makes the difficulty hard to overcome. French drawing, colour, and finish, as much depend for their effect on the possession of such, as of well-trained designers, versed in the requirements of the manufacture.

Efforts at superior design have been made in England, and good things realised. But French designers are employed, or French design copied, to a pitiable extent. In the costlier works, there is *no* English competition; it is all *direct* importation. Of cheap English papers, forced upon the public by their cheapness, the design of the majority is bad indeed, vulgar, unmeaning. It is the misfortune of this, as other manufactures, that design, the most important, from its diffusion, is least attended to. Tolerable art has to travel downwards, and by very slow degrees. The manufacturers manufacture, as some painters and musicians paint and compose, *down* to their customers, under the delusion these will not accept better. The fact is, they do not buy better, because it is not to be had—not within their reach. It is vain to talk of educating the taste of the people in decorative art, while the articles of their familiar use are, in design, a quarter of a century behind those produced for the richer classes. The appreciation of excellence, while needing culture in all, and exercise, is far more common to the many, than bad painters and low-class manufacturers would have it. Seldom is a good thing—not too recondite—set before them without some recognition. And the people are, in their unsophisticatedness of taste, often proof against those splendid errors, apt to dazzle the wealthy, always worshippers of the 'rich,' and the sumptuous outlay; as we see in the more costly goods of all kinds—carpets, porcelain, paper-hangings.

Some consideration of the elements of decoration would be advantageous in the choice of papers: the necessity of consulting the aspect of the room—warm colours for cold aspects, and *vice versa*; its size—smallness of pattern for small rooms; purpose, &c. As in the selection of other upholsteries, and of dress, a few guiding ideas would do more in preventing sins against decorative propriety than all the promptings of a capricious 'taste.' It is a rudimentary principle in art, in whatever application, that mere *imitation* is the veriest perversion of it, and as unsuccessful in its deception, as ungenuine in itself. This the majority of people will not see, obvious though it be. The first condition to *any* true effect is, that the attempt be acknowledged; a painting purposing to be a representation of nature, not nature itself; a paper-hanging purposing to be a paper-hanging, not an oak wainscot. Yet a popular class of cheap papers are the make-believes of solid substance—stone and wood. They are the descendants of a much more pretentious race, in vogue years ago, set much

store by at the time, which succeeding generations have seen fit to banish—imitative presentments of sculpture and architecture.

The prevailing styles in paper-hangings are, the direct employment of the natural material common to all decorative art—foliage and flowers; and geometric patterns, small or elaborate. In the latter, we have copyism of the Elizabethan, Renaissance, and Louis Quatorze. Among recent English papers of real excellence, good in principle, harmonised in colour, are well-distributed diapers; also skilfully arranged, more intricate, geometric patterns. Of the former class may be instanced Mr Pugin's designs, brought out by Mr Crace, the eminent decorator.

Mr Crace's name suggests domestic decoration—a branch of art in which this gentleman is in London acknowledged leader. In Edinburgh, Mr Hay has a high reputation for practical knowledge of decorative design, and elaborate, but dogmatic, investigations into the theory of art.

The refinement to which decoration has been carried in the houses of the wealthy; in panel-painting, and other ornamentation of wall and ceiling; on a consistent plan, subservient to a general effect; assisted by wood-carving equally subordinated, and attention to co-operating adjuncts, is a salient feature in recent decorative art. In public buildings, a corresponding development has, in contradiction to the practice of all time preceding, and of modern Germany and France, been mostly ignored, agreeably with that indifference and puerile parsimony as to art, characteristic of our government. And thus the efficient means of cultivating popular taste and decorative skill has been lost. Any extensive body, therefore, of competent, native, working-decorators is not to be expected. The demands of private individuals have been met by a few decorators, like Mr Crace, who have devoted time and study to their pursuit, and assembled or educated a staff of executive assistants, of more or less skill and taste. Correlatively with generally increasing wealth and pretension, the title of 'decorator' has been more and more assumed, in conjunction with the occupation of 'paper-hanger,' 'plumber and glazier,' &c. The class is a heterogeneous one. Decorators of a high kind are rare. Some of the self-styled professors cannot but discredit the calling, and by questionable taste diffuse the influence of bad instead of good art. A tasteful paper-hanging, let those of average means remember, is a far more genuine thing than a bald panel-decoration, tamely drawn, weakly coloured, still more than a vulgar sham. If not of really the best order, such assumptions are mechanical and offensive. The prevalence of *imitative* work, among all decorators, is an ill feature; as again is that of impure styles—the Elizabethan, Louis Quatorze. Definite principles little prevail anywhere. The fundamental error is the dominion of *styles*, instead of a style; of eclecticism, for independent thought and feeling. In the present state of architecture, little better perhaps can be expected.

Decorative art separates in application, like architecture, to which it ministers, into two branches: the public—civil and ecclesiastic; and domestic. The manufactures gone through have been viewed in the latter relation, that being in our day immeasurably the more prominent. Principles are alike in both—specifically modified by the varying manifestation. In old times, the public application, especially in its ecclesiastic

section, contested in productive importance, with the domestic; surpassed it in artistic, and in costliness. In the mediæval church, it included the purely decorative aspects of painting—ornamentation of plain surface, in monochrome, or single colour; in polychrome, or many; of sculpture—ornamentation in relief of stone and wood; stained glass; tessellated pavements; embroidered vestments for priests, studied in form and ornament; hangings; wrought iron and brass; works in gold and silver; enamelling, niello, &c. After long abandonment or perversion, revival of these developments has accompanied that of Gothic architecture—the distinguishing feature of current art. The High Church party in England has lent itself with fervour to the movement. Mr Pugin among the Catholics has led the way in design. A decorator like Mr Crace includes Gothic among his ‘styles,’ and finds it a favoured one. Reproductions of the Gothic patterns of wood-carving, encaustic tiles, embroidery, metal work, of the forms of church vessels; all, more or less correct in *letter*, have resulted. In stained glass there has been least relative success; in technic attainments of hue and æsthetic aspects—harmony of colour, unity of design, all comprised under the old *spirit* and *feeling*. Decoration in the special sense, ornamentation of surfaces, in colour, with a strictly decorative end, of general consistency of effect throughout an interior, has been little studied. In it there is small likelihood of approximation to the beautiful mediæval models. The remnants of such decoration are few and slight; we, removed from the feeling which dictated them. At the head of reproducers of Gothic manufacture, Messrs Hardman and Price of Birmingham, assisted by the able and fertile design of Mr Pugin, execute works in the metals, in hangings, stained glass, faithful to the old technic and æsthetic characteristics, and of exceeding beauty. The interior of the new Houses of Parliament, intrusted to the last-named master of Gothic precedent, offers the example on a large scale, in a civil building, of reproduction of Gothic decorative art, in most of its manifestations.

Thus we have completed the round, the endeavour to set before our readers the main existing relations of the decorative to the useful arts; the amount of aid æsthetic skill lends, the degree of fidelity with which it represents, contemporary manufacture. In contradistinction from the poetry of ancient decorative art—the result of faithful study—we have seen the prose, sometimes inanity, of modern. We have seen the consequence of the æsthetic losses of the last few centuries, and of the new and peculiar conditions of modern life; for adequately meeting which those losses have disabled us. We have seen the absence of a definite organic system of design, like the Grecian or mediæval—one spirit pervading all phases—such as insures a consistent development of the artistic resources of a people or time. In place of *its* order, and simplicity, and real freedom, have been noticeable mixed conflicting reproductions, of nature: flowers, foliage, animals; of antique material—cupids, nymphs, allegories; of lines Gothic and lines classic; of this ‘style’ and that—Elizabethan, Italian, Moresque. We have seen the total absence of design, properly so called, from many branches of English production; the weakness flowing from lack of artistic education; the literal copyisms of established manufactures; the surviving prevalence of Louis Quatorze and Quinze. Imitative ornamentation on ‘sound authorities’ is the only

advance yet dreamed by practical men; as a substitute for the same, at haphazard.

The difficulties of working out *de novo*, an artistic system, are great. From two sources we may look for hope. Perhaps it has dawned. Among recent successes, there is wide distinction between those merely revivals, as some just noticed—encaustic tiles, &c.; and those necessarily independent, but unguided—as dress-patterns. By reproduction of a good style, much may be done; in popular familiarisation of forms executed on true principles, and education therein of designer and artificer. In manufactures, on the contrary, peculiar to our time, by exclusive study of their technic conditions genuine character is attainable. In designing for mechanical modes of reproduction—printing on textile fabrics and on pottery, casting in iron, restrictions are happily laid on the designer. It is indispensable to consider the capability of the process whereby the final effect will be realised. Perforce, more reality is the indirect consequence, than were there license for fanciful vagaries ‘all out of his own head.’

In all provinces, independent of architecture, comparative facilities exist for future realisation of a consistent style of our own, through legitimately confining all attempt to expression of the uses and character of the article and material decorated. It has been seen throughout the truth of a design depends on its specific application to *material*—whether wood, iron, bronze, the precious metals, fictile substance, or textile; and on the particular purpose, whether for the person, wall, floor. The design effective in one material, consistent with one purpose, will not be in others. Another postulate of true design all along referred to is the imitation of nature within conventional boundaries, varying with the application, and its special limits. Illustration of the principle occurs in the question of adherence to natural local colour. In a painting purposing to represent nature, this must be given as there occurring. But in an isolated feature, leaf or flower, adapted to the pattern of a dress or paper-hanging, when the natural colour consistently involves other impossible requirements of fidelity, or trenches upon *deception* instead of suggestion, it is inadmissible. The French school, and a rising English body—including Bell the sculptor, and some recent disciples of ornamental design, who have done the best things—have an undue naturalistic tendency: a mistake apt to those not conversant with the laws affecting this particular province. The ‘naturalistic’ and ‘conventionalistic’ schools have from time immemorial been at feud. Their several truths are easily reconcilable. The solution lies in the equitable adjustment of the claims of nature and art.

Meanwhile there is from this very school hope; of development of unborrowed reality, from nature direct. To such end, one tendency must be discarded—that to excess of ornament, decorative overloading of the utility: another phase of the naturalistic, inartistic bias, this unmodified transference of natural detail. Simplicity is as essential to right decoration as to utility. In our efforts at the ornamental, would we have success, simplicity, utility, fitness, must be primary considerations; also, in general, compatibility of art with reasonable cost. That is *no decorative design* which is divorced from utility; and one little to the purpose, if beyond the ordinary buyer. But whether the article be cheap or costly, simple

tion is afforded. There is hope of a revision of the law: extension and equalisation of the periods. For the sake of public morality, of design, of manufacture, the amendment is desirable. Piracy, while it annihilates design, can never in the long-run help, do other than cripple manufacture itself. Neither will be on a sound footing, till all possibility be removed, of indulgence in this noxious, enfeebling vice—the basest form of that base subterfuge, *copyism*, the make-believe of a healthful original activity.

The importance of design in its application to manufacture is scarcely to be overrated: as a branch of popular education in feeling for art, as supplying the contentment of such feeling, when awakened. It is a development of art, the most comprehensive and various in itself, the widest in its diffusion and influence. Neither are the interests of that large portion of the people employed in manufacturing production less intimately bound up with the question of the decorative phase of it, the more or less reality and thought there brought to bear. The value in every department of human labour, of the exertion of *thought*, is inestimable to the producer himself, and all concerned in the production, as to the public. It elevates the tenor of his work, enlarges the range of his work-day experience. In decorative art, the scope of thought for the artificer lies in the imparting an aim, a meaning, and appropriate expression, to the decoration, harmonising material utility with nature. To those whom he addresses, is supplied familiar, indirect, mental appeal, and mental contentment: appeal and contentment, grounded on utilities, superadded to satisfaction of necessities. Thence is extracted, nature-wise, a finer use. The result, when decorative art is in a healthy state, truly fulfilling its function, is, as of all art—the enlargement of *life*; of the range of familiar sympathies, and delights, and thoughts, the rendering daily life to some extent fuller and fairer to all producing, all enjoying such art.

ALCHEMY AND THE ALCHEMISTS.

IN the case of a purely modern science, like geology or statistics, there can be little dispute and no mystery about its origin and progress. It is analogous to the United States of America. Its history lies, first and last, under the eye of present daylight: hour after hour recorded by the press, that chronometer of recent ages. Such sciences as astrology and alchemy, on the other hand, ran their courses in the twilight of time, having taken rise in the starlit night of history. Resembling the nations of antiquity in these respects, they resemble them also in tracing their origin to giants, prophets, superhuman heroes, or demigods. This fabulous character of the early annals of those dark-age mysteries—for they were schemes of esoteric dogma rather than explicit fabrics of knowledge—is the first thing that attracts the attention of the historical student of alchemy.

The very etymology of the word is lost in hopeless obscurity. Scaliger says he saw a work in the king of France's library, written in Greek, by Zozimus the Panapolite, in the fifth century; and Olaus Borrichius seems to intimate that he also had read it, although it is in a somewhat ambiguous passage that the hint occurs. They represent it as 'a faithful description of the sacred and divine art of making gold and silver.' Borrichius gives what professes to be an extract from it, in which the writer first refers to a fact which he had managed to deduce from the Scriptures, Hermes Trismegistus, and many other sources—namely, that there is a tribe of genii possessed of an unhappy propensity to fall in love with women. 'The ancient and divine Scriptures inform us,' he gravely assures the worthy Olaus, the learned Scaliger, and others his readers, 'that the angels, captivated by women, taught them all the operations of nature. Offence being taken at this, they remained out of heaven because they had taught mankind all manner of evil, and things which could not be advantageous to their souls. The Scriptures inform us that the giants sprang from these embraces. Chema is the first of the traditions respecting these arts. The book itself is called Chema; hence the art is called Chemia.'

Even supposing for a moment that the preamble of this singular account is true, and that the 'Sons of God' did impart many a primitive secret to the 'daughters of men,' it is not easy to perceive how a tradition could also be a book; and there would remain for explanation the name of the book itself. Plutarch, however, asserts that Egypt was sometimes called Chemia, and Panapolis was an Egyptian city. It was, moreover, another

of the favourite opinions among the Arabian as well as the earlier European alchemists (an opinion entertained by Albertus Magnus amongst others) that Hermes Trismegistus was the father of their science. That august personage is represented as having flourished two thousand years before the appearance of Christ. According to Kriegsmann, Avicenna and other Arabian polypharmists believed that Sarah took a table made of zatadi, supposed to have been emeralds, from the hands of Hermes, entombed in a cave near Hebron. On this table were inscribed the dogmas of the master concerning his chemical secrets, in thirteen mysterious sentences. In the twelfth of these enunciations, he informs the discerning public that on him 'was imposed the name of Hermes Trismegistus, because he was the ordained doctor of three parts of the wisdom of the world.' Now, although the very name of this supposed interpreter, not to speak of still more obvious internal evidences, is quite sufficient to prove the purely mythical character of the whole story, the existence of this tradition among both the eastern and the western adepts, seems to render it not unlikely that the etymology of the word is connected with Egypt. Borrichius's own private opinion is clearly to the effect, that the hermetic art descended from Tubal-Cain or Vulcan; but he allows that there is much to be said in favour of Trismegistus, who has been supposed by some to have been Chanaan, the son of Ham, whose son Mizraim first occupied Egypt.

It has to be mentioned, in fact, that the word Thoth, the Egyptian name for Hermes Trismegistus, means a pillar, according to Josephus and Manetho; in which, it seems, they are corroborated by Jablonski. The truth of the matter appears to be, that pillars were early used by the Egyptians for the same purposes as parchment and paper have been employed by the literary men of more modern nations. These pillars were their books and standard body of literature. It further appears that there were three successive Thoths or schemes of inscription; that is to say, three dispensations or epochs of pillared literature. The first set are said to have reached down to the time of the Flood; the second contained all that was discovered or thought during the infancy of the scientific knowledge of these ancient people; and the third was the embodiment or publication of the full-grown science of Egypt. Hence the whole system of pillars was readily impersonated under the mythical appellation of Hermes Trismegistus, the thrice-great interpreter, as the name implies. It is, accordingly, easy to understand how that illustrious and encyclopædical author was subsequently represented as having composed thirty thousand volumes! It must be confessed that all this looks very satisfactory, not only as explaining the traditionary story of Trismegistus, but also as confirmatory of the historic hint that the word chemistry is of Egyptian origin, as has already been shewn to be not unlikely.

On the other hand, it has been customary among more recent critics than these mediæval speculators to make the root of alchemy a Greek word. It has been supposed to be derived from *χῆμα*, which signifies *juice* or *menstruum*; and to refer to the acids, leys, and other solvents in use among chemists and alchemists. This was the favourite etymology among the very latest of the European adepts; and it gave rise to the spelling of the word with *y*—*alchymy*. Boerhaave contended that it was drawn from the Greek verb meaning *to fuse* or *melt*, *χῆμα*; and ever since the inculca-

tion of this etymology, both alchemy and chemistry have been written as they are printed here, in deference to established custom. Webster resists this derivation; spells them *alchemy* and *chemistry*; and remarks upon the noticeable circumstance, that the southern nations of Europe have never yielded to the Teutonic innovation.

It is unfortunate for these specimens of Græco-mania, that neither the word *chemia* (*χημία*), nor any etymon connected with the notion of alchemy or chemistry, occurs in any Greek author before Suidas, who is said to have produced his lexicon in the eleventh century, under the Emperor Alexander Comnenus. That lexicographer explains *chemia* to be the conversion of silver and gold; and is of opinion that the art of doing so was known to the Egyptians in the time of Dioclesian, who is said to have burned all the manuscripts in Egypt, in order to put an end to the pursuit. Suidas also suggests, under another head (*Δερμα*, a skin), that the invaluable fleece, which Jason and his Argonauts carried off from Colchis along with Medea, was nothing less than a treatise on gold-making written on hides. This is of course a piece of private and personal ingenuity on the part of Suidas; and, as such, it is not unlike another esoteric doctrine which some one has fetched us from the East, to the effect that the 'Arabian Nights' is a symbolic setting forth of alchemy! In fine, there seems to be not the shadow of a reason for surmising that the ancient Greeks ever dreamed of the matter.* They had neither the name nor the thing.

In whatever way this significant question concerning the origin of the substantive root of the word be eventually settled, there can be no dispute about the prefix. The unquestionably Arabic character of that particle, indeed, appears to indicate the fact that Al-chemy, as such, had its historical, though, probably enough, not its traditional origin in Arabia. Johannes Chrysippus Panianus, or an author under that somewhat too significant name (for there is no department of literature so overcrowded with spurious productions as that of the Spagyric art), is careful to insist that the polypharmists meant more than is apparent in denominating the doctrine of transmutation *the chemia*. According to him, they recognised a difference between all common chemical operations and the 'great projection.' Such operations belonged to the domain of vulgar chemistry, but transmutation was represented as being dependent on more secret and interior principles. It was the chemistry of chemistries, or Alchemy.

There has been implied in these observations on the derivation of alchemy a certain degree of discussion of the origin of the science itself. It is needless to inquire into the tradition, for example, which traces it to Moses, whose empirical knowledge of metallic reactions must have been not only considerable, but almost beyond that of the present day, if the Hebrew word be correctly translated in the account of Aaron's golden calf, given in the book of Exodus. It is said that the Jewish leader and legislator burned the idol, strewed the ashes of it upon the waters, and imbittered the drink of his impatient host. Now it has been remarked that, in order to produce such effects upon gold, he must have been, at least practically, acquainted with the properties of the sulphur salts—a class of compounds which have been discovered by the modern experimentalist only in very recent times. It is impossible, however, to come to anything like a satisfactory conclusion on such a point, after men like Spinoza and Fabre

d'Olivet have united, with the rabbinical school of these ages, in asserting that the Old Testament is far from being properly rendered, even in the Septuagint, in a multitude of particulars. It is, indeed, almost universally allowed, even amongst the most bibliolatrours of Protestant interpreters, that the glory of our version resides in its conveyance of the spirit of the Sacred Writings, and not in its literal fidelity concerning every petty detail. There can be no manner of doubt, for instance, that the word translated *nitre* ought to have been expressed by *natron*—that is, soda, or, more strictly speaking, the carbonate of soda. Hence Solomon illustrates one of his sharpest proverbs by the action of 'vinegar upon nitre,' referring to the violent commotion and effervescence which ensues on the mingling of natron and that acid; the principle, in fact, upon which the effervescing draughts of the modern apothecary are prepared. It is not altogether improbable, therefore, that the gold of Aaron and his rebellious brethren may have been a kind of brass or pinchbeck, with a large proportion of gold—a supposition which would render its calcination quite intelligible, without assigning anything like remarkable chemical information to the indignant prophet. Howsoever all this may really be, moreover, it is not to be overlooked that the practical acquaintance with even very complicated processes of this sort does by no means implicate a scientific knowledge or rationale of chemistry. The arts of baking and of brewing, for instance, are dependent on very complicated and recondite principles of action and reaction; yet it is generally understood that they were found out by 'rule of thumb,' and not discovered by induction.

Accordingly, one is prepared to find a positive and methodical chemist like Dumas setting all those antique claims imperiously aside; putting that of Maria the Jewess, a kind of mythological Joan of Arc in this fantastical region of fabulous history, among the rest. 'We can no longer,' says that eloquent philosopher, 'place the cradle of chemistry exclusively even in the laboratory of the ancient pharmacopolists, to whom some are willing to attribute its discovery. The services we have done raise us quite high enough to enable us to remember, and that without embarrassment, our obscure parentage. Let us confess at once, then, without going round about it, that practical chemistry took its rise in the workshops of the smith, the potter, or the glass-blower, and in the shop of the perfumer; and let us just agree that the first elements of scientific chemistry date no farther back than yesterday.'

Although this judgment seems to be very sensible and very natural, as coming from so great an ornament of the present school of chemistry, neither the one nor the other of the terms of which it is composed can stand the scrutiny of a stricter dialectics. In the first place, practical chemistry is not practical chemistry until it has first been theoretical or doctrinal chemistry. The moment an inventor bethought himself of using some chemical discovery or other for the purposes of economical art, the idea of practical chemistry was conceived. The origin of practical chemistry must therefore have been posterior to, or, at the earliest, coincident with, that of theoretical chemistry, be the date of the latter what it may. If, however, this criticism appear to be nothing better than a verbal or logical refinement, there is another consideration which is as unobjectionable as it is obvious. Accepting any less precise definition of practical

chemistry than has just been given, why stop at the workshops of civilised, or even of semi-civilised life, in tracing it to its rise? Why not ascend at once to Adam and his primeval family? If practical chemistry consist in the performance of operations which are essentially chemical in their nature, then the first man who kindled a fire, roasted an ox, or seethed a kid, was the father of all such as deal in that manifold art. These observations are certainly very unimportant, but so is the question which they concern, and they are offered for no other purpose than to prepare for the serious discussion of Dumas's second opinion about the history of chemistry. He asks us to grant that the first elements of scientific chemistry date no farther back than yesterday. It is the common opinion among the chemists of to-day. They are for the most part so dazzled by the really brilliant results of very modern chemistry, and so blind to the possibility of any of its first principles being only temporary and remote approximations to the truth, as to be incapable of tracing the theory of chemistry any farther back than the memorable days of Lavoisier, in the light of whose thought they still rejoice and work. Without caring to protest against this amiable idol-worship of the immortal Lavoisier, we deny that doctrinal or scientific chemistry is the contemporary of either the printing-press or any other modern instrument, whether of thought or of handiwork.

The Lavoisierian chemistry was only one of the epochs of the life of the science. But there were epochal developments before that of Lavoisier, just as the Daltonian era has come after it. Each of these movements had not only its grand and abiding truth to bring forward, but also some important and deciduous error to leave behind it, as might easily be shewn to have been the case with the French chemistry itself. In one word, alchemy (to say nothing of the post-alchemical doctrine of Phlogiston at present) had its genuine scientific function to perform, and its distinct scientific value in the history of chemistry. A true history of the science, in fact, would exhibit one continuous stream of truth mingled with error, from the origin of alchemy down to the latest discoveries and views. In the meantime, we shall unfold the story of the early progress of chemistry, with the aid of the competent authorities: and in doing so, we shall find a sufficient deliverance of all that is necessary, in the present connection, concerning the alchemists; and concerning their relation to science in general, as well as to chemistry in particular. It is desirable, however, to take a preliminary glance at the ideas of classical Greece respecting the theory of nature, for it will be found that those ideas have had not a little to do not only with alchemy in all its stages of evolution, but also with the chemistry of Dalton and the future.

Nor will the reader grudge the time and the labour of thought bestowed on such distant topics, when he finds that the consideration of them is fraught with lessons of importance. He will learn that man never labours in vain when he is sincere, devout, and industrious in his endeavours, as the alchemists will be discovered to have been. He will perceive to his delight, moreover, that there is no such thing as revolution in the progress of science, but only the large and solemn growth of a living creature. Nor will it be difficult to extend such precious verities from this, their private and particular sphere, into the grander domain of universal history.

It was Thales of Miletus, the father of Greek philosophy, who methodically originated the conception that *water* is the first principle of things. He inculcated the scientific dogma that water is the one substantial or underlying essence, of which the rest of nature is but the manifold expression. Water was represented in his system as the sole and primeval matter, convertible and actually converted, by some plastic power, into the thousand-and-one familiar creatures in the universe: now into this one, and now into that; now into wood and now into stone; now into the grass of the fields, and now into the body of man himself! Nor does this doctrine appear to be fantastical, as has been remarked by Ritter, when one reflects how rocks and salts can be extracted by mere boiling and evaporation not only out of the sea, but also from the most insipid of lakes and streams, and even from rain. It is not yet beyond the memory of man, that Lavoisier was careful to distil water backwards and forwards in a alembic; for many long days and nights together, in order to settle the question whether water were actually convertible into earthy matter, as had been asserted and believed by his immediate predecessors. Scheele, one of his most distinguished contemporaries, instituted another sort of experiment upon water, with a view to the determination of the very same point. It is not fifty years since Davy conducted his celebrated experiments on the electrolysis of water by means of the galvanic current, with very much the same object in view. It is, accordingly, easy to perceive that the ceaseless circulation of the liquid element from the ocean into the air, and through the air again to the earth in dews and mists and rains, only to run once more from springs and streams and lakes and rivers down to the ocean whence it rose, must have impressed the youthful science of ancient and imaginative times with the supreme importance of water in the economy of creation. But this contemplation of nature as one vast alembic, for the revolution of that beautiful and lifelike creature, was not the only motive to its exaltation as the best and first of things in the mind of Thales. The marvellous effects of moisture in its varying forms of river, rain, and dew, in covering the hills, the valleys, and the plains with verdure, during the flushing spring of Asia Minor and the Archipelago, to say nothing of the indispensable necessity of water not only to vegetation, but also to animal vitality itself, must have gone deeper still into the thoughts of those venerable seers who were first visited by the inquisitive spirit of wonder.

Willing to forget the moon and all subsidiary science, we have stood beside the sea a whole year round, and abandoned ourselves to its first impressions in the spirit of antique faith and awe. It moved forever at our feet, now driving us before it, and then drawing us after it, its everlasting voices in our ear. One day it murmured about our steps, kissing the brown earth, and kissing it again, never weary of kissing the softened beach; another, it was testy as a great wayward child, and chid the world the livelong day; on a third, it was as angry as a brawling woman, and chafed along the shore; another time it panted and heaved and lashed, like a hundred orators arousing the nations with their ire. Anon it swelled and roared, like an assailing host or an infuriated people; and again it thundered responsive to the heavens, flashing back flash for flash, reflecting an infernal blackness upon the chess of the falling sky.

Its variety of expressions were as many as the days of the year, and far more; but always it was moved from its very inmost, and always it moved to the impulse that stirred it, whatever that might be. It never lay still; it could not be at rest; it could not get away from itself. In vain it threw up spray and vapour and clouds; they returned to its unresting bosom through unerring channels. They went and they came as surely as it ebbed and flowed. They and it were always one; and all nature was penetrated by the unity. Wherever it touched, living things sprang into being: plants, animals, and man; only to be resolved again into the mighty organism of the waters when their lives were done. The ocean, reaching down to Hades, and stretching beyond the clouds, was the very blood of nature—'the blood which is the life.' Blind to sun, moon, and stars, insensible to the firm earth on which we stood, and deaf to the solicitation of the air and all its winds, we were lost in the contemplation of what seemed more alive than they; and then we understood how the first-born of the Wise Men of old pronounced the great deep to be at once the womb and the grave, the beginning and the end, of all created things!

Nor is it difficult to comprehend how Anaximenes, one of the earliest of the successors of Thales in what has been called the physiological school of Greek philosophy, should modify the doctrine of his predecessor, and assign the foremost place in the theory of nature to *air*. The ingenious reader will easily place himself in this new point of view, with the help of that imaginative sympathy which has just been extended to the earlier tenet. It is to be particularly noticed, however, that air was not the same kind of thing to those primitive doctrinaires as it is to us. Thales and Anaximenes, in fact, did not fix their eye upon the actual ocean and atmosphere, so much as upon an abstract conception which they had formed for themselves of the interior essence of these elements. It must not be forgotten, that in the childhood of human thought, as in the childhood of the human individual, there is no unmistakable distinction yet drawn between the world of sensation and the world of consciousness. The external world is still little more than a wondrous procession of perceptions, thought as sensation not being yet differentiated in the mind from thought as knowledge. The universe is still a passing scheme of shows and shifting modes of the perceiving spirit. Thales and Anaximenes beheld the green tree, the blue sea, the brown earth; and not, like Bacon and Locke, not merely a tree (or a somewhat) so propertied as to produce the image of a green tree in the mind, through means of the laws of light and the retina of the eye; not merely an earth (or another somewhat) which optics and physiology make into a brown earth; not merely a sea aniting with the eye to produce a blue sea between them; and so forth. In one word, those sagacious children of thought, the ancestors of Plato and Aristotle, were natural idealists: they were born idealists, not knowing that they were so; for they had never reached the point of scientific scepticism even for a moment.

Hence Anaximenes is represented as discoursing concerning *air* as the equivalent of intelligence or soul. It was his god—one, eternal, and unchangeable in essence; so that he stood at no great distance from that ancient and public spirit of poetry which fashioned the languages of mankind. The grand difference, indeed, between Orpheus and Hesiod on the

one hand, and the first teachers of philosophy on the other, consists in the circumstance, that the latter had developed for themselves and for all succeeding ages the idea of methodical investigation; a fact which constitutes them the fathers of science, notwithstanding that their specific doctrines are now of little use. The conception of one aboriginal source of all visible things, common to the schemes of Anaximenes and Thales, is a scientific statement of the poetic myth which pictures Proteus as the solitary and god-begotten shepherd, eternally driving innumerable herds and flocks of all kinds of creatures before him. It is remarkable, in connection with the Thalesian form of this idea, that all those subordinate deities which regulate the affairs of nature are figured, in the orphic theogony, as the children of Oceanus and Thetis: Oceanus the monarch of the sea, and Thetis the ocean-bride, Oceanus the male energy of essential water, and Thetis the female; Oceanus the positive, and Thetis the negative forces, which constitute the visible unity of that omnipresent radical moisture, from whose exhaustless bosom all other things proceed. It is impossible for the imagination of 1851 not to descry the subtle thread of thought which seems to associate this venerable pair, Oceanus and his Thetis, with the oxygen and hydrogen of our own chemistry; especially when it is remembered that chemists so thoroughly accomplished as Davy and Prout have seen nothing repugnant to the genius of modern research in the conjecture that oxygen and hydrogen, the married coefficients of water, may prove to be the original elements of the whole world!

It may be mentioned, in passing, that in all the cosmogonical myths of the Greek mind there flickers the idea of polarity, the law of the inevitable dualism of things, the fact of the universal chemistry of nature: two in one, active and passive, positive and negative, male and female, and the unity of such mutually-conditioned pairs in this single creature and in that. We say the universal chemistry of nature; for it is the essential aim of chemistry to discover two constituents in every one thing: sulphuric acid and soda in the wonderful salt of Glauber; sulphur and oxygen in sulphuric acid; sodium and oxygen in soda.—and what pairs in sodium, oxygen, and sulphur? Nor is it necessary, in the present connection, to do more than state the fact, that this very idea of the bipolar unity of all sensible phenomena, generalised to the utmost, is at once the deepest and the wisest of the grand principles fairly established by the genius and industry of recent science.

Diogenes Laertius asserts that the illustrious doctrine of the *Four Elements*, with the unspent echo of which we have all been familiar since the Christmas-games of childhood, was first promulgated by Pythagoras; one of those gigantic spirits of antiquity whose personality history can scarcely catch a steady glimpse of, but whose shadow lies large and long upon the world of old. If this report be true, it were probable that the Quaternion was filched from Egypt; and that might be the ground of the tenacious conviction of the alchemists, that their mystery descended from that land of wonders and the Nile. It seems, however, to have been Empedocles who not only gained the dogma a footing in the world, but also elaborated it into a consistent hypothesis of nature. Empedocles, a man of condition, a legislator, a theologue and a poet, belonged, as a philosopher, to the second movement of Grecian science. Thales and his

schoolmen had attempted to solve the nature of the universe, including under that significant epithet the all-embracing unity which results from the three worlds of sensation, consciousness and conscience turned into one; a comprehensive definition implied in the very word itself. They approached and contemplated that universe as one and divine: they aspired to the solution of absolute being. Heracitus, Anaxagoras, Empedocles and Democritus, on the other hand, were content to fly a lower pitch. They investigated the theory of nature, properly so called, and also, like Descartes and Bacon, the origin and methodology of science. If we had to discuss the great discoveries of Dalton and his compeers in chemistry, we should have occasion to adduce the atomic theory of Anaxagoras and Democritus; but at present it is only the doctrine of the Four Elements that falls in our way.

That famous dogma may be considered from two several points of view. It may be taken as a concrete proposition, or as an abstract one. It may be studied as a particular or as a general tenet. It has indeed been presented under both these aspects, since the days of its origin down to the period of its adoption by Oken, a contemporary of our own. Viewed as a particular proposition, the theory of Empedocles was simply this:—A handful of wood, or of any other ordinary combustible, is kindled and burned upon the surface of some cool body. the experimentalist observes that, while it burns, there rises smoke or *air*; the smoke is followed by flame or *fire*; moisture or *water* is deposited on the settle, or any other cold substance in the way; and ash or *earth* remains. The wood has been resolved into its coefficients, factors, or elements; and these are four—fire, air, earth, and water. But the burning of some wood had never been a scientific experiment before. It was not a chemical experiment; and from the very nature of the subject it could not become so, until such time as it was intentionally observed with a view to the determination of the composition of wood. A thunderbolt was not an electrical experiment until Franklin conceived of it as such, and varied it at will. An initiative idea must always accompany, if not preceed, some natural phenomenon, in order to render that phenomenon an experiment or scientific observation. The intention, the observation, and the conclusion of Empedocles concerning the world-old process of combustion, then, constitute the first methodical or consciously scientific reflection ever made upon a chemical transformation. It is therefore nothing less than the long-sought origin of chemical science! For what is a science? It is the body of methodical or consciously scientific reflection on the observed phenomena of any one department of nature. Is it necessary to the nature of a science that it be all true, and that it contain no admixture of error? By no means: else chemistry was no science during the reign of Phlogiston; optics no science during the predominance of the materialistic theory of light; the Lavoisierian chemistry no science as long as oxygen was taken for the principle of acidity; ay, and the chemistry of to-day might very easily be proved to be no science any more than the rest. We have put our finger on the very fountain-head of all succeeding chemistries at last.

The Greek mind, however, could never hold exclusively by the concrete. It did not delight in details: it hastened to generalise: it loved particular nature indeed, but it never rested until it had glorified the particulars of

nature into types of the universal. Hence their sculpture, their drama, their philosophy; and hence their want of a self-fulfilling science of nature like ours. Fire, air, earth, and water were not only chronicled as the constituents of wood or common combustibles, as they would have been had it been possible for Empedocles to have sat at the feet of either Roger or Francis Bacon. The four elements were at once canonised as the sufficient and indispensable components of the whole of nature. There was, accordingly, an end of chemistry proper among the Greeks at once and for ever. The first step nobly taken, they never took another. On the contrary, they soon refined upon the elements they had discovered. Demetrius of Abela fell back upon the Thalesian notion, that there is necessarily only one true and primitive substance; and he represented the four elements of Empedocles as its visible representatives. Plato seems to have followed Demetrius in this conception to a certain extent, complicating it with speculations concerning the shapes of fire-atoms, air-atoms, and so forth; and maintaining, on the strength of apparent observation, that fire, air, and water are transmutable into one another, but not earth. There therefore remained only two permanent elements in the Platonic scheme. One of these was the common principle of fire, air and water, mobile, penetrating and quickening; the other, the earthly principle of things, was fixed, penetrable, and capable of being vivified. Plato, in fact, reduced the analysis of Empedocles to a shadowy doctrine of dualism. Aristotle, on the other hand, rejected the Platonic tenets concerning both ideas and matter, as well as the numerical idealism of Pythagoras. He held by the Demetrian idea of one underlying substance as the ground of all natural phenomena. He believed in the one radical matter of the universe, and argued that the four so-called elements are not such in reality, seeing they can be converted into one another. What subtleties and mysticism men are sometimes led into when they leave the path of observation! But every nation has its function. It was that of Greece, in so far as knowledge is concerned, to furnish the rest of time with nothing more than clews to the arcana of nature. But it was still more emphatically the mission of the Greeks, as philosophers, to discover those laws of investigation according to which alone such threads could be followed into the labyrinth of creation with advantage. The great result of all their centuries of striving was accordingly the invention of the inductive method by Aristotle; that mighty organon which, almost rediscovered, and certainly restated in a more practicable form by Bacon, has made us what we now undoubtedly are—the entering heirs of nature and all her inexhaustible wealth.

Such is the doctrine of the four elements. It has been domesticated with literature for more than two thousand years: it has been sung in the poetry of every land: it has been attacked, overthrown, and proscribed by modern science; yet it has actually been revived in our own days as the basis of the philosophy of nature! There is only one thing more to be said of it, considered as a particular proposition. That primitive analysis of wood by Empedocles, viewed as a chemical experiment, was actually a good one so far as it went. Wood is in reality composed of fire, air, earth, and water. They are its proximate constituents in a manner. Only modern analysis has gone farther still: it has divided

the phenomenon of fire into the phenomena of heat and light: it has found smoke to contain carbon, oxygen and hydrogen, not to be too minute: it has resolved water into oxygen and hydrogen. The ash or earth has been decomposed into several other substances by its more relentless methods.

The four elements, however, were also regarded in a more abstract and classic light in the Grecian schools, as has already been observed and slightly exemplified. Each of them was a type; each of them stood for a vast class of things. Air represented gasiformity; water, liquidity; earth, solidity; and fire, the imponderable forces of nature. Fire, air, water, and earth were frequently used as the philosophical symbols of what we now denominate the imponderables—gases, liquids, and solids respectively. They became abstract terms, and were constantly losing their chemical or particular significance in the besetting tendency of the Hellenic mind to excessive abstraction. It is scarcely necessary to add that, in this abstract phraseology, three of the four elements are at length demonstrated to be actually convertible into one another. When a solid body is heated, it swells and swells until it falls down liquid. On the elevation of its temperature, the liquid swells in the same way, and is finally converted into a steam, dry gas, or air. The atmosphere we breathe is the steam of a liquid or water, which boils at an incredibly low heat; and that liquid is a melted solid. There is a temperature at which gold itself would be changed into a thin dry air, fit for the breath of some imaginable creature. The experiments of Faraday and Thilorier on the liquefaction and solidification of the gases warrant such conclusions. The relationship of those three generic forms of matter, in truth, is now understood to be unexceptionable and sure; and the consideration of it casts not a little light on the prattle of Plato and Aristotle about the mutual convertibility of the elements. Nor will this twofold meaning of the doctrine of Empedocles be without its importance in the elaboration of a just conception of alchemy and the alchemists, as will soon be seen. In the meantime, we cannot proceed to that department of the subject in hand without quoting the opinion of Professor Necker of Berlin, as translated by Dr Babington for the Sydenham Society. 'No mediæval author,' says he, 'omits an opportunity of representing conjunctions of the planets as among the general prognostics of great plagues; nor can we, for our parts, regard the astrology of the middle ages as a mere offspring of imposition. It has not only, in common with all ideas which inspire and guide mankind, a high historical importance, entirely independent of its truth or error; but there are also contained in it, as in alchemy, grand thoughts of antiquity which modern natural philosophy is so little ashamed of, that she claims them as her property.'

A good deal has already been said about the substantive root of the word alchemy, and it has thereby been made apparent how little that is certain can be said about the matter. It seems that we must be content to accept it at the hand of one or other of the veiled figures of antiquity, of whom we can see and say nothing. The reader has likewise glanced into the structure of certain doctrines concerning the theory of nature entertained by the Greeks. It has been found that Empedocles's canon of the four elements must be considered as the veritable origin of the science of chemistry, although the science was not known under any such name till

many hundred years after the days of that early speculator. Chemistry, in fact, did not advance among the Greeks beyond its illustrious first experiment, and the broad but unwarrantable generalisation that was erected on it; a thing quite intelligible, when viewed in connection with the intellectual proclivities of the national mind. There was a more urgent task before them than the working out of particular sciences; namely, the discovery and the exposition of the science of sciences—the science of method. Before they could invent sciences, they had to invent an intellectual organ, or conscious instrumentation, according to the laws of which the sciences were to be invented. Before discovering chemistry, they had to discover the art of discovering chemistry, to use a strong expression. Their progress in positive knowledge was accordingly small in extent, and great only in depth; while the successive schools, with or without a very distinct consciousness of what they were accomplishing, lavished all the energies of the most wonderful national intellect the world ever saw on the excogitation of the principles of discovery, the methodology of science, and the laws of thought. The consummation of the whole movement has been represented as having transpired in the person and the works of Aristotle; that is to say, its consummation in so far as the interests of physical, and indeed all positive science, were concerned. It would be more catholic to say, the intellectual career of those schools found its apotheosis in Plato and Aristotle, viewed as the opposite terms of one result, and actually embodied as one, with some degree of development in Socrates their predecessor. Philosophy is the true Janus and keeper of peace. It has an eye for the earth, and an eye for the heavens: an eye for the sensuous, and all that arises from it by intellectual transformation and exaltation; and an eye for the ideal, and all that descends therefrom upon the daily life of man: an eye for nature, and an eye for God. Aristotle was the perfection of the one, Plato of the other, of those philosophic functions; and the union of these master-spirits in the person of one sage would make a complete philosopher, in so far as methodology could render him complete. Were such an imaginary and perhaps impossible being as complete in mere panoply as Pallas when fresh from the brain of Jove, however, he would have to live and labour for ever and ever ere he should become a completed philosopher in the larger sense of the phrase; for the sphere of objective truth is as unbounded as the empyrean. That is to say, there is only one complete philosopher—even the Spirit of Omniscience, of whom Plato has said it is perhaps better not to name Him, in case we should degrade his idea. As it is, Plato was the greater philosopher, for philosophy is primarily conversant with ideas; and Aristotle was the greater man of science, for science has its dealings with the concrete in the first instance. To use a chemical figure of speech, less appropriate than in character, philosophy and the Platos of the world are occupied with the process of distillation by descent; while science and the Aristotles are engaged with that of sublimation. At the same time, Aristotle could not escape the habit of mind which distinguished his countrymen—namely, an overweening tendency towards excessive abstraction; and he philosophised upon science more than he invented sciences, amazing though the amount of his information and knowledge undoubtedly was. That is one of the reasons why the methodology of Aristotle, essentially practicable although it was, was so

unproductive in the hands of his disciples. The methodology of science did nothing but degenerate after its great development in the philosophy of Aristotle, and that more especially in the department of physics. We have seen that, in so far as a possible chemistry was concerned, the prospect of anything like advancement was at once foreclosed by the vast over-generalisation made by Empedocles and his critics upon the analysis of common combustibles by fire. It was nearly the same in every other direction, always excepting those purely mechanical subjects which were susceptible of illustration by geometry. Unable to use the Organon invented for the use of thinkers by Aristotle—namely, that inductive philosophy which Lord Bacon has taught us the art of bringing to bear upon the castellated secrets of nature—they were content to make it the object of endless and unprofitable discussions. Unequal to the task of carrying out the intellectual life of Aristotle into the amplitudes of an external and a victorious development (as Locke, Newton, La Place and Lavoisier, Herschel and Dalton, have carried out that of Bacon), they were reduced to the alternative of setting him up as an infallible authority, the monarch of their thoughts, and the idol of their hearts. Long, too, did he reign, in spite of many an indignant protest by the masters in alchemy, as we shall find, until the final overthrow of the scholastic philosophy by Descartes and Bacon. Nor would the world have suffered greatly from this protracted domination, if it had really been Aristotle that reigned. But it was not. It was Aristotle misunderstood and perverted. It was an Aristotle scarcely read, known only by transmission, and distorted by the vision of the schools. It was not the sun of Aristotle that these scholastics beheld and adored: it was only his zodiacal light. They did not study his great principles of investigation: they merely adopted his opinions regarding a host of special points; a thing which, done now-a-days to Bacon, would reduce him as low as ever Aristotle was degraded by his mistaken followers. The true Aristoteles, that best ending or greatest and last representative of the most illustrious line of royal thinkers this world has yet produced, remains intact. In reality, the methodologies of Aristotle and of Bacon are substantially the same. They are one method or doctrine of knowledge stated in two several ways. The Greek stated the inductive method subjectively; the Briton puts it objectively. The Greek developed it from within outwards, like the growth of palms; the Briton grows it from without inwards, like an oak. The Greek constructed the telescope, leaving it in the workshop of the mind where it was put together; and no man was strong enough to move it from the tressles, until the chancellor of Great Britain wheeled it to the air, and directed its resistless eye upon the heavens.

One has simply to understand, then, in the present connection, that during those centuries in which alchemy shall be found to have been working in the mind of Europe, the dogma of the four elements, the vague idea of their mutual convertibility, and the supposition of some fifth element common to the four, or rather the very soul of all the four, were predominant among the learned. This, indeed, is one of the undeniable origins of alchemy; but there is another, for alchemy has two historical sources: this one in old Europe, and another in Asia. The attention of the reader must now be directed to the latter.

It was during the caliphates of the Abassides, and apparently under their patronage, that the school of polypharmacy flourished in Arabia. The earliest work connected with that movement which is now known in Europe is the *Summa Perfectionis*, or 'Summit of Perfection,' composed by Gebir. It is consequently the oldest veritable book on chemistry proper in the world, although it dates no farther back than the eighth century. Nor does the science derive much credit from this performance, when judged from one point of view; for it contains so much of what sounds very like jargon in our ears, that, according to Dr Johnson, the name of its compiler has been transmuted into gibberish for the use of indignant English tongues. Viewed under its legitimate aspect, however, it is a wonderful thing. It is a kind of text-book, or collection of all that was then and there known and believed for nobody knows how long back. It appears that those Arabian polypharmists had long been engaged in firing and boiling, dissolving and precipitating, subliming and coagulating, chemical substances. They worked with gold and mercury, arsenic and sulphur, salts and acids. They had, in short, become familiar with a goodly number of what we call chemicals in ordinary parlance; although there is in reality no such thing as a chemical, for everything is one.

To these Arabians, however, chemistry was by no means a theory of all nature, considered under the chemical point of view, as it is to us. It was only the theory of a laboratory full of curious, rare, and aristocratical substances. Nor were they without their deep-reaching conjectures or dogmas respecting these strange things. Gebir taught the principle that there are three elemental chemicals—mercury, sulphur, and arsenic. The penetrating and victorious qualities of these bodies fascinated his thoughts. Even gold itself, which its weight, its beauty, and its incorruptibility by the fire united to signalise as the most perfect of matters, is dissolved by quicksilver almost as easily as sugar is dissolved in water. Brimstone pierces iron like a spirit the moment they touch one another, if the metal be white-hot from the furnace; and they run down together in a shower of solid drops, a new and remarkable substance, possessed of properties belonging neither to iron nor to sulphur.

But they had their alchemical theory as well as this chemical one. They inculcated the proposition that all the metals are compound bodies. This was a very natural opinion, and it prevailed during the whole of the long subsequent reign of Phlogiston. It not only lasted, indeed, till the time of Lavoisier, but neither Cavendish nor Priestley ever gave it fairly up. The metals are for the most part extracted from what are called calxes, on account of their resemblance to so many chalks of different colours. These calxes, rusts, or earthy ores are endowed with neither the weight nor the lustre of metals. They are as unlike iron, lead, or gold as things could be. Yet it is easy to change them into metals: iron rust into iron, lead calx into lead, and so forth. They are heated along with carbonaceous materials in exclusion from the air, whereupon the respective metals are melted out, and flow to the bottom of the apparatus. Thanks to the Lavoisierian chemistry, we know the meaning of this operation. It is the carbon that carries away oxygen from the ores, and leaves the metals free; for those ores or rusts are composed of that oxygen and the metals respectively. But at first sight, it must have looked as if the ores got

something in the furnace, instead of giving away anything: it must have seemed that they took some principle from the furnace, and so became metals. It required many a long and weary day's work, alas! to make it even possible for Lavoisier to discover that it was exactly the reverse."

According to Gebir and his successors, however, the metals were not only compound creatures, but they were also all composed of the same two substances. Now both Prout and Davy have lent their names to ideas not unlike this. 'The improvements,' says the latter, 'taking place in the methods of examining bodies, are constantly changing the opinions of chemists with respect to their nature; and there is no reason to suppose that any real indestructible principle has yet been discovered. Matter may ultimately be found to be the same in essence, differing only in the arrangement of its particles; or two or three simple substances may produce all the varieties of compound bodies.' Those ancient ideas, therefore, of Demetrius the Greek physicist, and of Gebir the Arabian polypharmists, are still hovering about the horizon of the most recent system of chemistry.

The Arabians taught, in the third place, that the metals are composed of mercury and sulphur in different proportions. It was at one time a favourite hypothesis of Davy's, that the metallic and other elements are the compounds of hydrogen (a kind of gaseous mercury) with a yet unknown base, in different proportions. He tugged hard at more than one of the elements to prove it. The fact is, that both the polypharmists and he are in error. Mercury and sulphur are just as much (and as little) elementary bodies as silver and gold, lead or tin, copper or iron, on one hand; and on the other, the hydrogen extracted from certain so-called simple substances, by the British chemist, was only hydrogen mechanically condensed within their pores, as he discovered in good time. The oldest and the youngest schools of chemistry, then, are equally at fault in this particular; and this brings us to the remark, that Gebir, Phazes, Avicenna, Mesuë, Averböes, and their compeers, did no more bestow their principal attention upon those speculations anent mercury and sulphur, than Davy or Berzelius expended his labour on analogous hypotheses. They were, in truth, genuine polypharmists; neither more nor less than is implied in that business-like denomination. They toiled away at the art of making many medicines out of the various mixtures and reactions of the few chemicals at their command. They believed in transmutation, but they did not strive to effect it. It belonged to their creed rather than to their practice. They were simply a race of hard-working, scientific artizans, with their pestles and mortars, their crucibles and furnaces, their alembics and aludels, their vessels for infusion, for decoction, for cohobation, sublimation, fixation, lixiviation, filtration, coagulation, and botherations of every sort. Many a new body they found; many a useful process they invented; many a good thing they did. The chief and remarkable difference between these excellent doctors and the young men at work in the *officium* of a reputable chemist and druggist consisted, perhaps, in the circumstance, that they had a kind of scientific religion over their sweating heads. They believed in transmutation, in the first matter, and in the correspondence of the metals with the planets, to say nothing of potable gold; whereas their modern counterparts see through every species of humbug—carbon and silicon, homœopathy, *et hoc genus omne!*

Whence the Arabians derived the sublimer articles of their scientific faith, is not known to any European historian. Perhaps they were the conjectures of their ancestors according to the flesh. Perhaps they had them from the Fatimites of Northern Africa, among whose local predecessors it has been seen that it is just possible the doctrine of the four elements and their mutual convertibility may have arisen. Perhaps they drew them from Greece; modifying and adapting them to their own specific forms of matter, mercury, sulphur, and arsenic. But be those high dogmas the direct produce of Arabian thought, or be they a cross between Greek ideas and Arabian facts (an opinion to which we incline), there they are; and they must now be traced into European alchemy.

Partly carried by the Moors by way of Africa, and partly borne by the currents of returning Crusaders, this Arabian chemistry was brought to Europe; and it speedily became inextricably entangled with the fantastic subtleties of the scholastic philosophy. It was in Spain that it found its earliest opportunities of this new and not uncongenial development. It flourished there, in an unprogressive way, under the patronage of the Omniades but not until the tenth century. It spread from Spain to England, Germany, France, and Italy successively, from the eleventh to the sixteenth centuries inclusive. It is interesting to learn that the earliest authentic works of European alchemy now extant are those of our wonderful countryman Roger Bacon; or, as the name imports, Roger Beacon, a word which is pronounced Bacon in some districts of England yet. In fact, he is the foremost man in all the school; the first in substantial knowledge, and the greatest in faculty. He was born in the county of Somerset, in the year 1214, and he lived seventy years. Having studied at Oxford and Paris, he became a Franciscan friar. Little is now known about his outward life and conversation. The people suspected, dreaded, and slandered him. He was accused of having fabricated a brazen head, according to the rules of the occult philosophy and judicial astrology, which uttered oracles to him when consulted by magical incantation; he was imprisoned more than once; and at last he was poisoned by his monastic brethren. A man of vigorous and erected intellect, he saw far before his age. In a book concerning 'The Wonderful Power of Art,' he condemns magic, necromancy, the doctrine of charms, and all such things. Acquainted with the Latin, Greek, Hebrew, and Arabic tongues, he exhausted all the real physical knowledge of the day. So passionate an instinct had he for what is positive in science, that, in the department of nature, he actually claimed an equal rank for observation with reason; a claim which was advanced again, and achieved, nearly 400 years after, by his more illustrious but not more sagacious namesake, Francis Bacon, the liberator of the sciences.

To say nothing of his philosophical ideas and his other information, in chemistry he was acquainted with gunpowder. In giving the *résumé* for its preparation, however, he expresses charcoal by a word of his own—*luruvopovicandriect*; either with the view of hindering so perilous a substance from being made by the vulgar, or for the purpose of slurring over his own ignorance of the ingredient in question. In fact, gunpowder seems to have been known to the Chinese before the Christian era. Bacon asserts that the thunder, lightning and magic, witnessed by the Macedonians at Oxy-

drakes, when besieged by Alexander, were nothing but the fulminations of that mixture. It was not introduced into Spain by the Moors, however, until 1348; and it is therefore probable that the friar derived his incomplete acquaintance with it from his Oriental readings. He believed in the convertibility of the inferior metals into gold; but, like his Eastern teachers, he does not profess to have ever effected the conversion. He was eminently practical in the tendencies of his mind, although he retained some of those speculative views, which we have seen to be deficient neither in sublimity nor in a species of truth. His faith in the elixir of life was somewhat deeper rooted than his confidence in gold-making. He followed Gebir in regarding potable gold—that is, gold dissolved in nitro-hydrochloric acid or aqua-regia—as nothing less than that terrestrial hypocrene. Urging it on the attention of Pope Nicholas IV., he informs his holiness of an old man who found some yellow liquor (the solution of gold is yellow) in a golden phial, when ploughing one day in Sicily. Supposing it to be dew, he drank it off. He was thereupon transformed into a hale, robust, and highly-accomplished youth. Having abandoned his day-labouring, he was received into the service of the Sicilian king, and served the court some eighty years. The philosopher, it is to be presumed, must assuredly have taken many a dose of this golden water himself, and, if the Gray Friars had not made away with him, he might therefore have been alive at this moment, as stout a positivist as Monsieur Conte! At all events, it is curious to think that Descartes, the father of psychology, regarded by many as the inventor of the inductive philosophy, and the rival of Bacon the Second, should have been as credulous as Bacon the First about long life. Descartes also believed he had attained to the art of living a few hundred years, and so did some of his friends. When he died before reaching the climacteric of sixty, nothing would convince one of his most intimate associates that he had not been poisoned! In truth, we should never look at the little particular beliefs and notions of great spirits in the history of science, but to their great ideas: otherwise we shall run the risk of despising men so exalted in character as to remain for ever incapable of despising us. But, some thoroughgoing Baconian will perhaps observe, it is important to take notice of the ridiculous opinions to which their wrong method was able to conduct such men. Well, one might reply, be just, and apply the same scrutiny to the second Bacon and ourselves: for the day will soon enough be here when posterity will smile at the Baconians of the eighteenth century, who brought themselves to think of the Bible, for example, as nothing more than an organon of priestcraft; at the positivists of the nineteenth, who discovered that thought, emotion, passion, and will are but the imponderable products of chemical or other physical actions in the brain; at the physicists of to-day, who have entertained such images of the materialising fancy as the matter of light, caloric, electric fluids, and what not! Perhaps the time is not distant when young children will wonder at not a few things, belonging to the truth of ingenuous observation, which we are yet slow to receive; for credulity of temper is even more strikingly exemplified in bigoted unbelief of the credible, than in too great a facility of conviction. In fine, there is probably as much nonsense believed and as much truth rejected, in these our own times, as at any other period. But it must never be forgotten, that there has also been accomplished a vast

increase of real and positive knowledge in the progress of these centuries; that increase being quite as much owing to Roger Bacon and his compeers as to us; for their part of the task was a far harder one to perform than ours. There is indeed no room for national or epochal vanity in the study of the history of science: there is rather occasion for humility and emulation; for those old men worked with grand ideals and small means, upon an obdurate and an unbroken soil; while we stand on fields which they have ploughed, armed with an elaborate instrumentation, and too often guided by ideals which savour more of the shop than of the universe.

The next great name in the authentic history of alchemy is a German one. Albrecht Groot, or Albertus Magnus, was born at Bollstadt of Suabia in 1193, some twenty-one years before Roger Bacon; and he died two years before him; but he was rather later than the friar as an author. Remarkable for his early appearance of stupidity, he studied medicine at Padua, and taught it at Cologne and Paris. He then travelled all Germany as provincial to the fraternity of Dominicans, and sojourned at Rome some time in all the odour of renown. He was finally appointed to the bishopric of Ratisbon. A theologian, a physician, an astronomer, a magician, a necromancer, and not a little of the man of the world, he addressed himself with particular emphasis to the study of the polypharmacy of the times, and wrote many works on that and other cognate subjects. He describes the chemical waterbath, the alembic, the aludel, and various lutes; and shows himself acquainted with alum, caustic alkali, the purification of the royal metals by means of lead, and the purging of gold by cementation, to say nothing of his knowing how to determine the purity of gold. Red lead, arsenic, and liver of sulphur, are among the chemicals on which he multiplied experiments. His style of exposition is generally plain and intelligible. In addition to the sulphur and-mercury theory of the metals, drawn from Gebir, he regarded the element water as still nearer to the soul of nature than either of these bodies. He appears, indeed, to have thought it the radical source of all things, along with Thales, the father of Greek speculation. Like all the true masters, however, he was more of a workman than a visionary.

Thomas Aquinas, the Dominican, was a pupil of Albrecht's. A divine and a scholar, that canonized personage wrote several obscure treatises of alchemy. He is chiefly notable here, however, as having first employed the word *amalgam*. Quicksilver penetrates tin, lead, silver, and some other metals; opens them up, and makes a homogeneous paste or liquid with them. Aquinas denominated the resulting compound in such cases an *amalgam*, little seeing how much his good word should be abused in the days of English railways.

Raymond Lully is said to have been a pupil of Friar Bacon's. He was born at Majorca in 1235. His father was seneschal to James I. of Arragon. He entered the army very early in life, whence he soon passed to court. Being yet young, and having subsequently studied at Paris, he became not only a doctor, but likewise a member of the order of Minorites; and he persuaded King James to found a cloister of his ecclesiastical brethren in Majorca. He journeyed through Italy, Germany, England; visiting kings' courts and rich abbeys, for the purpose of rousing Europe to one grand missionary effort for the salvation of the heathen. It is said that he

was never a whole year in one place, from his youth upwards. He visited Cyprus, Armenia, and Palestine in the character of an impassioned preacher of Christianity. According to one account, he was stoned to death on the coast of Africa in the course of a sermon; but according to another, he died at home in 1315, at eighty years of age, having sunk into fatuity before that event; and he was buried in his native isle. Notwithstanding of this impassioned and erratic career, he dabbled industriously among the chemicals of the time; and produced more than sixteen chemical works. They are much disfigured by unintelligible jargon, and present a powerful contrast to Roger and Albrecht in respect of vigour and common-sense. Yet he was the first to introduce the use of chemical symbols, his system consisting of a scheme of arbitrary hieroglyphs. Nor are his books deficient in observation. They contain many observations on the distillation of cream of tartar: the deliquescence of the alkalis; the separation of an aqua-fortis from saltpetre by means of the oil of vitriol; the preparation of aqua-regia by mixing nitric acid with sal-ammoniac or common salt; the volatile alkali; alum; marcasite of some sort; white and red mercurial precipitates; and other things. He made much of the spirit of wine, imposing on it the name of *aqua vite ardens*, which it retains to the present time in some quarters. In his enthusiasm he pronounced it the very elixir of life, an opinion which is still a favourite among our countrymen in the north. In a word, he was a restless, intelligent, invective and somewhat fanatical busybody in the affairs of the church, of science, and of life: an ardent and generous spirit withal: probably not unlike our own Priestley, and not without a great degree of utility in his day and generation.

Arnaldus de Villâ Nova was not a churchman like his predecessors. On the contrary, he was condemned as a heretic, but the pope protected him from the extreme penalty, as the pope of his day would have consented to protect Galileo, if the impetuous Tuscan would only have suffered himself to be advised. Born in Provence, somewhere about 1240, and educated under the famous John Casanilla at Barcelona, he had to fly to Paris through Italy for forecasting the deathday of Peter of Arragon. He afterwards taught in the university of Montpellier, and was consulted far and wide by kings and popes. Guided by the rules of judicial astrology, he discovered that the world was to have been blown up in 1335; a discovery which is surpassed by soothsayers of another species, almost every month or every year, in these more illuminated days of ours. Unable, however, to await the fulfilment of the horoscope he had drawn out for the Mighty Mother, he died in 1313, on his way to visit Clement V., who was lying sick at Avignon. He wrote twenty-one works; of which the '*Rosarium*,' a compend of alchemy, is the most curious, if not instructive. The theory of the author is very plain, but his practical directions are far from lucid now. Mercury is an element of all the metals. Gold and gold-water are the most precious of medicines. Bismuth is called marcasite. The preparation of the essential oil of turpentine, the oil of rosemary, the spirit of rosemary, long known as Hungary-water, and many other gentle distillations, are all to be traced to this heretical experimentalist.

A couple of Dutchmen are the next to figure in this alchemical calendar—Isaacus Hollandus, and either his brother or his son. These Hollanders belong to the thirteenth century, later in the day than Arnaldus, whom

they quote with reverence. Their treatises are remarkable for clearness and precision. They were the first to give figures of apparatus, a thing which renders them memorable in the history of physics. Writing mostly in Latin, they sometimes used the German tongue, being probably the earliest vernacular authors in European science—another claim to distinguished remembrance. With all their plain dealing and plain speaking, however, they cannot be said to have advanced chemistry otherwise than as honest, sagacious, and penetrating compilers. It is curious that your clear, cautious, ultra-sensible men do so very little that is new and great. It would appear that vigorous impulses, and a certain poetical extravagance of character, are quite as characteristic of the Keplers, the Hunters, the Herschels, and the Davys of science, as even that cardinal faculty of the soul, that first and last of the intellectual virtues, common-sense itself.

These qualities were combined in an excellent proportion in the person of Basil Valentine, one of the most celebrated of all the alchemists. Born at Erfurd, a Saxon town, in 1394, he became a Benedictine monk. He bestowed the larger part of his attention upon the preparation of chemical medicines. It was he who introduced antimony into medical use; the 'anti-monk metal,' the name assigned it, one might surmise without uncharity, after some wicked experiments on the stomachs of his monastic brethren. He made a vast deal of that curious metal. All he writes about it is as clear as glass, and quite abreast of our knowledge in the present century, so far as it goes. He makes no mistakes so long as he treats the chemistry of the subject. The 'Currus Triumphalis Antimonii,' or 'Triumphal Chariot of Antimony,' were almost a model of positive observation, if it were stripped of its chemico-medical speculations. Drawing a beautiful but fallacious analogy between gold-making and the restoration of health, he maintains that antimony is the best for both! He followed the Hollanduses in regarding salt, sulphur, and mercury as the three bodies contained in the metals. He inferred that the philosophers' stone, or peristrophè, must be the same sort of combination—a compound, namely, of mercury, sulphur, and salt; so pure that its projection on the baser metals should be able to work them up into greater and greater purity, bringing them at last to the state of silver and gold. But Basil Valentine, the steady-eyed charioteer, knew something more substantial than these things. He knew arsenic and its red sulphuret, zinc, bismuth, manganese ores, nitrate of mercury, corrosive sublimate, red mercury, nearly all the antimonials in the pharmacopeias of 1851, litharge, sugar of lead, white lead, and many things besides, under these or other names. He precipitated iron from solution by potash. He was aware that tin sometimes contains copper, and that Hungarian silver contains gold. He knew how to extract gold from the red elixir by means of quicksilver, and he makes mention of fulminating gold. In fine, he may be characterised as the founder of analytical chemistry, that inevitable art which now leaves nothing untouched; which is furnishing new wonders every year; which resolves the food of nations into water and air, and suggests the possibility of air and water being some day made into food; which is drawing nigh the very threshold of vitality with fearless hands; and which is undoubtedly destined to change the whole economy of the outward life of man.

Roger Bacon having thus set the example of enormous industry, and

having exalted experiment to its legitimate rank in the logic of chemistry; Albrecht Groot having supported the dignity of the science by the universality of his accomplishments and the elegance of his style; Arnauld having applied the art of common distillation to chemical research; Raymond Lully having summoned the attention of the adepts to the products of destructive distillation; and Basil Valentine having opened up the science of metallurgy and analysis, there came upon the field a gigantic creature more celebrated than them all: it was Paracelsus. As strong-headed as Bacon, as inventive as Albrecht and Arnauld, as indomitable as Lully, and as mighty an enthusiast as Basil Valentine, this remarkable man wanted the truthfulness of character which animated all his predecessors; and he fell. He was born near Zurich, at the beginning of the sixteenth century, his name being Theophrastus Bombastes; and it is from that surname that the word bombast is derived—so arrogant, so insulting, and withal so ‘great and swelling’ were the ‘words of vanity’ he uttered, when little Theophrast grew a famous revolutionist under the far-sounding title of Theophrastus Aureolus Bombastes Paracelsus! His boyhood and youth appear to have been engaging, though impassioned and ambitious. He began life as a purist, having drunk nothing but water, and eaten little else than bread, until he was appointed to the first professorship of chemistry at Bâle in 1527, the earliest chair of chemistry ever established. As a physician, early famous like Simpson, he was amazingly successful and amazingly presumptuous, having been as unlike the great Edinburgh doctor in every other respect as he was like him in unresting enterprise. As a professor, he was eloquent, learned, and insolent in the extreme. He burned the books of many of the authorities before his hustling crowds of students; poured his contempt upon both the Arabian shop-doctors and the scholastic pedants; sounded anew the praises of Hippocrates; magnified his proper self even more than the sagacious Greek; played all sorts of mad pranks; surcharged his fascinated disciples with his overweening spirit; and kept up such a storm in poor little Bâle, that the magistrates had to banish him from his chair. After many alternations of fortune, and after having abandoned himself to debauchery, this ‘erring and extravagant spirit,’ this man of extremes, this mighty agitator, actually died in an obscure tavern at Salzburg, at forty-eight years of age. We may lament his ungracious life and his miserable end; but there is no denying that he was a great reformer; and he is certainly an important figure in the history of chemistry and medicine. He descried the utter hollowness of the prevalent scholasticism, as respected physical investigation, with an eye as clear as Francis Bacon’s. On the other hand, he looked with the contempt of a Carnus or an Oken on the bootless ploddings of the mere pharmaceutical chemists of the day. He also perceived the value of the long-neglected descriptions and practical rules of Hippocrates, with the sagacity almost of a Sydenham or a Cullen. In truth, if he had been content to do these three things, and to do them well, he might have become the father of modern science; but Old Legion was in him, and he could not govern his noble intellect. Ambition, vanity, the love of opposition and destruction, and all unkindliness would not let him be. He would amaze as well as instruct the world forsooth! He would put it under everlasting obligations to him, while he despised its gratitude! *At least* for true glory in his earlier years, he early became the

victim of a low-lived hunger for power and reputation. The great positive aim of his efforts was to pluck the panacea or elixir from the secret-keeping heart of nature, and thereby shew how omnipotent he was. He did not succeed of course; but he was too proud to own his failure, and so he talked 'an infinite deal of nothing.' What with private brawling, public haranguing, and ceaseless publication, the student feels as if this magnifoo had only talked and talked, and died in ignominy. Yet he was a vigorous thinker, and actually originated a practical movement in our science, while he certainly brought mere alchemy to an end. Holding by Basil Valentine's principles of mixts or elements of compound bodies, salt, sulphur, and mercury (representing respectively earth, air, and water, fire being already regarded as an inponderable), he generalised the properties of those four first principles of nature with great breadth. They were purely representative in his system of doctrine, as their counterparts had soon become in the systems of the Greeks. All kinds of matter were reducible under one or other of those typical forms: everything was either a salt, a sulphur, or a mercury; or, like the metals, it was a mixt. There was one element, however, common to the four; a fifth element, the quintessence of creation; an unknown and only true element, of which the four generic principles were nothing but derivative forms or embodiments. In other words, he inculcated the dogma that there is only one real elementary matter—nobody knows what; a dogma like that of Demetrius and Aristotle, which is metachemical rather than chemical, and therefore of little or no practical importance. It gave his experimental pursuits a useful bias however. It set him upon the search after the essences and quintessences of things. By a natural, but no less sophistical slip in his logic, he considered alcohol as the quintessence of wines; and blue as the quintessence of blue stuffs and stones! It was in this way, however, that he set agoing that prosecution of the active principles of mixed or complex medicaments, which has ended in the extraction of quinine, morphia, veratria, theine, and a multitude of valuable proximates. It was Paracelsus, also, who began that tendency to mingle chemical considerations with the physiology of the human body in health, with its pathology in disease, and with the practice of the art of healing; a tendency which is still far from being exhausted. The works of Dumas and Liebig, and of the whole school which they represent, may be described as the very consummation of this iatro-chemistry, as it has been styled. It was likewise our present hero who introduced the word *alcahest* into alchemy, the term usually applied to the universal solvent; a word supposed by some to mean *alcali est*, is it an *alcali*?—but sometimes said to be composed of the two German vocables, *alle geist*, all spirit. It does not appear that Bombastes was a seeker of this universal solvent himself; but the name perhaps imports his idea that the one prime element of things, or fontal matter, was also the veritable alcahest. High above his practice of physic, his criticism of the predominant methods of inquiry, and his multifarious manipulations, there seems to have flitted the sublime conception of an unattained, perhaps an unattainable, quintessence or fifth element of things, which should prove to be at once the philosophers' stone, the universal medicine, and the irresistible solvent. In order to seize this triple aureola of existence, and put it on his heavy-laden head, as a crown

ALCHEMY AND THE ALCHEMISTS.

of joy, he knew that it behoved him, at the very least, to lead the natural life of a child in the intellectual life of a free man; but he paltered with his idea of his mission, sank into infamy, and died unannealed. Yet something that is charitable and thankful, and even affectionate, is surely to be pronounced over the squalid public-house where so magnificent, so outspoken, so effective, so celebrated, and withal so wretched a Protestant fell asleep at last. But that is a task for the orator or the poet rather than for the man of science; and the reader is therefore referred to Browning's philosophical drama, entitled 'Paracelsus,' for the emotions with which it becomes us to pronounce his motley but splendid name, and to remember his stormy but beneficent career.

We have now considered the ideas of the Greek physiologists concerning the world of matter, in so far as they are capable of being represented as standing in connection with the history of early chemistry; having omitted taking any notice of the atomic theory of Democritus, because it has no relation to that history until the time of Dalton, our own contemporary. We have also glanced at the nature of Gebir and the Arabian polypharmists, and seen as far into them as Sprengel and other authors have enabled us to do. We have likewise spoken briefly about the series of grand-masters in that dim and somewhat tree-masonic department of scientific history, that of European alchemy, from that proto-martyr of science in Christendom, Roger Bacon, down to Paracelsus, the magnificent victim of his own presumption and the hatred of his age; and found them to be for the most part a race of brawny inquisitors, inspired by ideas great enough to enable them to live aside from the world, if not above it, on one hand, and to do a good day's work for the world, on the other.

To take the ludicrous view of the character of these Arabian, English, Spanish, German, French, and Dutch enthusiasts for a moment, it was of such men that the fantastical Becher exclaimed—'De gustibus non disputandum est—There is no disputing about tastes;' a proverb which agrees with reason and experience. Some folks will have sweet food, others like sour better, and a third prefers what is bitter. Some delight in gaiety, some in sadness. Some love music, others have no pleasure in it at all. But who would have thought that there is a taste to which you must sacrifice honour, health, fortune, time, and even life? You say that those who are addicted to it must be madmen. No! They are only men of an eccentric, heteroclitic, heterogeneous, abnormal turn of mind. They are chemists—

'Naaty, soaking, greasy fellows,
Knaves would brain you with their bellows;
Hapless, sapless, crusty sticks,
Blind as smoke can make the bricks!'

Chemists of lively parts and wide views, such as Joachim Becher was, must sometimes make a pause in the toilsome career of their life in the laboratory, and smile at the grim earnestness with which they hang over their furnaces, batteries, mercurial troughs, Bohemian tubes, thermometers, and balances, denying themselves the freedoms of nature, and many of the dearer interests of other men. There are poets who wonder at the spec-

tacle of such keen spirits as Humphry Davy, for example, labouring with might and main at the dry births of stone and iron, when they might well be abroad among the strong and the beautiful, stirring the life of man in its august depths. But a man must work where he is placed; and he must also obey the hint of his peculiar talent, else he will never do the most he can for the race and for himself. These are two of the great rules of duty. There is little matter what a man finds to be his proper task, so he rest not until he have won all it can teach him; so he relax not until he have made the most of it for the world; so he relent not before he has adorned it with his proper virtue, and ennobled it by his proper genius. Truth is a globe like the world; and it is of small moment where you begin to dig, for you will come as near the centre as another if you dig deep enough. It is at the same time an important, though a secondary duty of the industrious miner, to ascend every now and then from his particular shaft, both to see what others are about, in case he should become the egotist of a single pursuit, and to refresh himself with the inexhaustible variety of nature and of life.

To return to the alchemists, who were wiser in this very respect than their successors in these days of the extreme division of labour, the historian finds that soon after Paracelsus the adepts of Europe spontaneously fell into two classes. One of these comprised a multitude of weak men, who rode the hobby of the older school; and that very hobbiorsically too, to quote a whimsical adverb of Sterne's for the purpose of characterising a set of whimsical fellows. The other class was composed of men of diligence and sense, who devoted themselves with infinite labour to the discovery of new compounds and reactions. The two constituent elements of the genuine alchemist, in fact, fell asunder after Paracelsus; and both of them suffered from the separation. The fantastical element found a host of foolish representatives, and the practical one incarnated itself in a company of plain and painstaking men. The celebrated Van Helmont was an alchemist of the first water in his youth, and a very practical chemist in his old age. Nor can it have been an easy thing for such as him to renounce the sublimities of alchemical ideal, and content themselves with the practicable aims of common chemistry. Van Helmont had actually convinced himself that not only gold—that sun-bright and almost beatified body of the soul of matter—but everything else, consists essentially of nothing but water, as had been told the ancients by Thales, the eldest of the seven wise men of Greece. He had planted a sprig of willow in a vesselful of such a soil as appeared incapable of yielding it any nutriment; suspended the little willow and its pot in the air; fed it on pure water; and yet the creature had grown apace, stretching forth its branches, and covering itself with leaves! What was to be inferred from this seemingly crucial experiment? Why, surely that wood, and bark, and foliage, and acids, and salts, and earths, and all things do lie folded up in some mysterious but not inscrutable manner within the elemental substance of water. Alas, the experiment was fallacious! The experimentalist did not know that the air around his expanding plant contains both carbon and nitrogen; that water results from the union of oxygen and hydrogen; and that these three gases, and that one solid body, are in reality the essential constituents of the vegetable tissue. Van Helmont,

however, must on the whole be regarded as belonging distinctly to the new school of practical chemists, and not to the post-paracelsian brotherhoods of degenerated alchemy. It must be confessed, at the same time, that the chief circumstance which lent any dignity to the pursuits of him and his companions in arms, was the stupendous chaos of phenomena in which they had to work. Libavius, Cassius, Glauber, Agricola, and the rest of them, deserve to be remembered for their indefatigable zeal, and for the multitude of single facts they managed to quarry out of nature. It has also to be recorded of them that, although they were a race of pedantic artisans rather than men of science, it was more particularly in their persons that the metaphysical era of scientific history was aspiring towards a more exalted stage of development; namely, towards the epoch of positivism, the era of Descartes and Bacon, the day of experimental observation under the guidance of the inductive syllogism.

It is unnecessary to trace the alchemists so-called after this decomposition of the old alchemical character. They are no longer historical: they are no longer with their age: they are behind it. Their vitality is gone from them: they merely drivel on in a kind of questionable existence. They are poor ghosts, being *restants* that cannot get away: not *revenants* come back with some important secret. The life of the time is all on the side of the practical chemists after Paracelsus. The misnamed alchemists are mere inanities after that period. They can do no one useful thing: they can only compile mystical trash into books, and father them on Hermes, Aristotle, Albertus Magnus, Paracelsus, and other potentates that never wrote such nonsense in their lives. They can only form themselves into secret associations, Rosicrucian fraternities, and what not! Their anonymous gabble is all about suns and moons, kings and queens, red bridegrooms and lily brides, flying birds, green dragons, ruby lions, virginal fountains, royal baths, waters of life, salts of wisdom. The seven metals correspond with the seven planets, the seven cosmical angels; and with the seven openings of the head, the eyes, the ears, the nostrils, and the mouth. Silver was Diana, gold was Apollo, iron was Mars, tin was Jupiter, lead was Saturn, and so forth. They had essential spirits so fine, that drop after drop let fall from the phial's lip did never one of them reach the ground. They prated for ever concerning the powder of attraction, which drew all men and women after the possessor; the alembic; and the grand elixir, which was destined to confer immortal youth upon the student who should approve himself pure and brave enough to kiss and quaff the golden wavelet as it mantled over the cup of life, the fortunate Endymion of their fantastical mythology. There was the great mystery, the mother of the elements, the grandmother of the stars. There was the philosophers' stone, and there was the philosophical stone: the philosophical stone was younger than the elements, yet at her virgin touch the grossest calx among them all would blush before her into perfect gold. The philosophers' stone, on the other hand, was the first-born of nature, and older than the king of metals. In the famous dialogue of the 'Ancient War of the Knights,' he exclaims with fond remonstrance, 'Good God, my dear gold, I am older than you!'

Yet it was this wretched remnant of a great school that gave the earlier men of the present age its impression of alchemy! Now, visionaries of this

caste exist in 1851. There are actually a number of as genuine scientific fanatics as these, possessed by the very same fantasies, and using the self-same phraseology, astrological and pseudo-alchemical, in the Europe of the present day; but no one would ever think of according any historical significance to such a second nursery of innocents as that. Yet the sole difference between these poor creatures and the post-paracelsians of the seventeenth century, is to be found in the circumstance, that the latter had many temptations and opportunities to play the Doustersawivel; and accordingly many a queer imposture was then practised in the name of Aristotle, Gebir, or Raymond Lully. One might relate innumerable stories of that sort; but it is impossible to see how such narratives could be of the slightest use towards the right understanding of true and historical alchemy, from Friar Bacon to Paracelsus inclusive.

It is enough to notice the fact, that, after Paracelsus's protest against the intellectual methods of old alchemy, a multitude of weaklings continued to dream away their lives among the verbiage of an exhausted movement in all countries; while a race of sturdy, positive chemists were living to some useful purpose, and finding out all sorts of new chemical substances in preparation for the unpretending logic of a better day. The two streams, like the unmingling waters of the Soane and the Rhone, ran together a space side by side before dividing for ever: one of them to sink into the sands, like Arethusa, and be lost; the other to gather a hundred tributary streams, and come flowing right onwards. Alchemy has, accordingly, be it repeated, no historical meaning—one might almost say, no historical existence, after Paracelsus; just as the critical doctrine of Voltaire and the encyclopædists cannot boast of anything like a historical life in Europe after the close of the last century, although there are still men in Paris, Berlin, or London, who will swear by it to the last. Nor would the historian ever dream of illustrating the scepticism of the senses from the timid and feeble performances of those fond and lingering disciples of that inverted psychological alchemy of the eighteenth century: inverted alchemy, for its 'grand projection,' consisted in the attempt to transmute everything into nothing; reminding one of that unhappy votary of Rosicrucian vanity, who chronicled the sad result of all his life in one melancholy couplet—

'From out of nothing God fetched everything,
But out of all poor I can nothing bring!'

Yet it appears, as has just been said, that the current notions of alchemy are drawn from the etiolated and partycoloured literary remains of those posthumous votaries of the spagirie mystery. It is from that too-questionable epoch, for example, that we have the story of a venerable stranger entering the famous city of Nobody-cares-what at eventide, in the gray month of November in the memorable year of 1600; of his inveigling the ingenuous son of his landlord into recondite talk about the stone; about their going privily to a great rich goldsmith, and making a huge dollop of gold out of tin and lead with his utensils; of their selling it at a just price to the hospitable jeweller; and of the venerable rascal stealing out of the city before cock-crow with all the good money in his pocket. It was during the same period, in fact, that quackery and imposture abounded in con-

nection with mock-alchemy. It was then that ape-headed, nut-hearted, sly knaves easily found their dupes among fools in high places, as avaricious and ignoble as they were credulous. It was then, to take an instance, that the former scamps made up large nails, half of iron and half of gold, well joined together, and varnished with lacker, so as to pass for veritable tenpennies; and then that the latter equally wretched creatures opened their eyes with amazement, and their hands with greed, when they saw a good golden ingot extracted from plain pig-iron!

It was then, also, that the majority of the accessible alchemical tracts and treatises were compiled. The miserable anonymities who put them together generally inscribed the name of some grand authority upon these inane productions, to give them currency. They consisted for the most part of the wilder passages of the old masters, unaccompanied by any of their real knowledge and practical remark, mangled, inflated beyond bearing, and maddened by the poor cross-lights of the actual editors. The reader accordingly comes upon striking and even beautiful passages in some of those vile performances, which are frequently just so coherent, and no more, as to suggest the perception that there is a 'method in their madness.' For example, one of some score of masquerading Paracelsuses opens his creed with these words.—'All composed things are of a frail and perishing nature, and had at first but one only principle. In this all things under the cope of heaven were enclosed, and there they lay hid; which is thus to be understood—that all things proceeded out of one matter, and not every particular thing out of its own private matter by itself. This common matter of all things is the great mystery, which no certain essence or prefigured idea could comprehend. Nor could it comply with any property, it being altogether void of colour and elementary nature. The scope of this great mystery is as large as the firmament. And this great mystery is the mother of all the elements; the grand-mother of all the stars, trees, and carnal creatures.'

Such is the preamble of the book; but nothing follows; for the substance of the treatise is just this same preamble, with variations over and over again. The penman's science is like a street-organ of old and even elaborate construction; but all its tunes are gone dumb except this one; and for the life of him he can grind nothing out of it but the overture!

The only supposable method, of course, in which this common matter or great mystery could produce all the other bodies in nature, was a species of self-involution; a rolling of itself into this shape and that, so as to pass from the unity and monotony of chaos into the multiplicity and harmoniousness of creation. Such is probably the meaning of those passages in the later Hermetics, where it is said 'to kill itself—to espouse itself—to impregnate itself—to engender itself—to be born again of itself—to make itself red—to make itself white;' and so forth. Says the Stone to Gold in the 'Ancient War:' 'Aristotle says of me—We add nothing more to it, and we change nothing in it: Oh, how admirable is this thing which contains all things in itself!'

The modern chemist cannot escape the sense of surprise when, in connection with such extracts, he bethinks himself of the transformations of isomeric substances and the action of catalysis—two of the latest discoveries of importance in the science. For example, the gas cyanogen

is transmuted in certain circumstances into the solid substance paracyanogen. Nobody knows precisely the difference between them, considered from the chemical point of view. The colourless pungent gas and the tasteless brown solid, cyanogen and paracyanogen, are of the same chemical composition, notwithstanding of the fact, that their sensible and chemical properties are as distinct as possible. They both contain carbon and nitrogen in the proportion of 6 to 7. Cyanogen can be made into paracyanogen, and paracyanogen into cyanogen again. Cyanogen can literally be transmuted into paracyanogen, without either addition to or subtraction from its substance; for 'we add nothing more to it, we change nothing in it: Oh, how admirable is this thing (cyanogen) which contains that thing (paracyanogen) in itself!' Cyanogen in becoming paracyanogen 'kills itself, espouses itself, engenders itself, impregnates itself, is born again of itself, and makes itself' brown. Cyanogen may also be said to be convertible into at least other two substances. Cyanogen, the radical of fulminic acid, the radical of cyanuric acid, and paracyanogen are all composed of carbon and nitrogen in the ratio of 6 to 7. Yet these four bodies produce, by combination with oxygen, four acids as different from one another as they well could be, although they all contain carbon, nitrogen, and the newly-added oxygen in the same proportion—namely, carbon 6, nitrogen 7, and oxygen 4. In fact, these three things, the radicals of the fulminic and cyanuric acids, and paracyanogen, are only three of any possible number of isomeric forms of cyanogen; the resultants, that is, of the self-involution of that gaseous body. Cyanogen is the 'one only principle,' at all events, of those three quasi-elements or compound radicals. In cyanogen they were 'enclosed, and there they lay hid;' 'which is thus to be understood, that (these three things) proceeded out of one matter (cyanogen), and not' each of them 'out of its own private matter by itself.' Cyanogen, in short, is 'the great mystery' in relation to these three radicals, and in relation to all similar ones which may yet be discovered. And this great mystery, cyanogen, is the mother of those quasi-elements, fulminigen, cyanuren, and paracyanogen; the grandmother of fulminic, cyanuric, and paracyanic acids; of the fulminates, cyanurates, and paracyanates; and of all the thousand-and-one compounds proceeding from this great stock!

We could entertain the reader with such new glosses on old texts by the sheet; but space forbids. We must also omit all reference to the Roman de la Rose, the Chanon of Brydlington, and other Rosicrucian rhymes, although we have made some notes on both subjects, which are not without interest. It is now time to say a few decided words concerning alchemy proper, considered as one great movement of the human mind in Europe, by way of bringing these excursions to an end.

The true alchemists, then, while they were also diligent experimentalists in pharmaceutical and other practical chemistry, cherished three sacred beliefs and objects of enthusiastic hope, which we shall now arrange not in their historical, but in a convenient order.

I. They believed in the alcahest, or universal solvent. Taking that epithet, even in its most literal signification, it has simply to be stated, that modern chemistry has actually realised it. The element fluorine is nothing less than the alcahest. Lavoisier once expressed his surprise that it should

never have occurred to the masters that no vessel on earth could hold the universal solvent, because it would solve the vessel too! That is precisely the difficulty to contend with in the attempt to isolate fluorine. It is a good many years now that it has been well understood by chemists that Derbyshire spar is composed of calcium—the metal of which quicklime is the rust or oxide—and of fluorine, another element, the latter of which ingredients could not be presented separate, just because no substance could withstand the intensity of its chemical action. No one doubted the existence of fluorine—thanks to Davy's discovery of iodine, and the sagacity of Ampère—notwithstanding of the circumstance that it could not be handled and seen, owing to its irresistible powers of solution. It at length occurred to two brothers of the name of Knox, that vessels cut out of fluor-spar itself, seeing it is a substance already saturated with fluorine, might serve the purpose of catching some fluorine in; and their experiments have been in a great degree successful. Faraday has also experimented on this subject. Fluorine seems to be an orange-coloured gas; chlorine is a green gas; iodine is a solid at ordinary temperatures, but a gentle heat converts it into a deep purple vapour. Bromine is liquid, and resembles iodine vapour when in the gaseous state; but it is more ruddy than purple. These four elements are deeply connected with one another; but be that connection what it may, and even suppose that fluorine has not yet been separated in the state of absolute chemical purity, it cannot be denied that there lies the alkahest of old alchemy.

II. They believed in the transmutability of the metals; it has already been seen on what kind of grounds. The idea of transmutation, stripped of all particularity of form, is as old as Thales and recent as Davy, to profane this page with no meaner name. In one shape or another, it is ineradicable from the instincts of the science. It is hardly necessary to add, that if any one element were satisfactorily converted into any other, this the second problem of alchemy were solved as well as the first. It is enough to observe that such a thing is being prosecuted with ardour and conviction in the present day. *Festina lentè!*

III. Those European alchemists also believed in the elixir of life, or universal medicine, capable of curing all curable diseases, and of prolonging life long beyond its present average of duration. It was not till the dotage of alchemy that the conception of an elixir of immortality amused the world. In connection with this unattainable ideal of theirs, it has just to be mentioned that Lord Bacon and Descartes, who are always regarded as the Castor and Pollux of that luminous epoch of which extinguished the mediæval schools, were quite as much bent upon the invention of means for the prolongation of life as any alchemist of them all. We have already seen that the French methodologist actually supposed himself to have added a few hundred years to existence; and anybody that has read Bacon's precepts on the subject, will testify that the elixir-hunters could not exceed him either in the largeness of his expectations or in the absurdity of his plans. Neither is it very easy at first sight to perceive the practical superiority of the successive medical schemes of Stahl, Boerhaave, Cullen, Broussais, and the rest of the modern doctrinaires, over those equally successful and more poetical dreamers. If a scientific spectator may judge from the recent writings of certain of our own physicians—

from the articles and letters, for example, of Dr Forbes, the editor of the *British and Foreign Medical Review*, of the late Dr Andrew Combe, and of a host of anonymous abettors of these able men, the predominant school of physic appears to be coming to the conclusion, that it can scarcely do better than go back to the time of Hippocrates, sit a while at his feet, and begin afresh. It is the very counsel which poor Paracelsus thundered into the astonished and insulted ears of his contemporaries.

Such, then, was alchemy; such the heaven, the horizon, and the neighbourhood of the third of the ancestors of the modern chemist. To the man of the nineteenth century, it must always be interesting to grope away back into those dim and spectral regions of scientific development. Were circumstances favourable, we should be glad to accompany the student into some of the more quaint and questionable of those recesses of the past. We should visit the weak as well as the strong; for there were the weaker brethren in those religious days of science as well as now. What buried figures we should descry, intent with sweating brains upon the last projection; what minglings of the glare of the furnace with the unearthly glow of a magnificent, but misdirected spirit of enthusiasm; what perilous balancings of the spirit between the dread extremes of imposture and insanity; what thin lights and solid shadows we should behold in the murkier hours of that merely starlit night of history; what agonies of mind and heart! Ideals how sublime, realities how paltry! It was their lifelong struggle, to bring a lofty but imperfect theory of nature into effective unison with the inflexible phenomena of the world of facts. They did not succeed, and they have passed away. Peace be with them; for alas! the life of the visionary is the same feverish, uncalculating, unsatisfying, weary, and maddening discipline in all ages; and there are as many of those not unlovely maniacs in the epoch of Chancellor Bacon and Humboldt as ever there were in that of Friar Bacon and Paracelsus.

The history of chemistry, subsequently to the apotheosis of the alchemical epoch, was not without its extravagances; but it became remarkable for the unprecedented rapidity with which the accumulation of facts proceeded. In the hands of the practical chemists, who have already been alluded to as the legitimate successors of the alchemists-proper, the science became more unreservedly directed to the positive labours of the laboratory; and there rapidly ensued a very remarkable extension of the boundaries of concrete or practical chemistry. Hence the great multiplication of chemical substances, experimental apparatuses, and new processes, that succeeded the euthanasy of alchemy. Stones and rocks, earths and ashes, ores and meteors and lavas of every species, were triturated, lixiviated, roasted, ignited, dissolved in acids, crystallised, precipitated. It was soon perceived that there is one not only salt, one elemental salt, but an endless variety of salts: oil-of-vitriol salts, aqua-fortis salts, spirit-of-salt salts, earthy salts, alkaline salts, metallic salts, and so forth. There were forthwith found to be more metals than seven, the seven planets and holes in the human head notwithstanding. These were discriminated the mineral, the vegetable, and the volatile alkalis. At length a great chemical principle began to dawn in the midst of all these gathering and crowding details, like the gleam of untouched phosphorus in the dark. In short, the

new chemists began to surmise that the chemical act of burning, or the process of combustion, as it is now called, is a process of first-rate importance and significance in the science of chemistry. They desecrated that the right explanation of the burning of wood, of brimstone, of anything, in fine, that is susceptible of combustion, would reveal a critical secret of this department of knowledge. It was the distinct perception of this, and the invention of a hypothesis or theory of combustion, that constituted, or rather consummated, the new movement, and fairly consolidated a new epoch of chemical development. Beccher and Stahl were the patriarchs of this great school—the former as the inventor, the latter as the illustrator of the doctrine of phlogiston; a doctrine which sufficed for the needs of the growing science nearly a hundred years. They observed that the common phenomenon of combustion concealed within its glowing bosom one of those central or fontal facts, on the discovery of which the history of science is continually turning. Pursuing this clew, which the reader of this outline will now recognise as older than the time of Aristotle, although never laid firmly hold of until that of Beccher, they generalised the phenomenon itself in the first place. Their metals, with the quite intelligible exceptions of gold and silver, were changed into rusts or calces, or artificial ores, resembling chalk-powder or brick-dust when heated in exposure to the air of the fire; and this change they perceived to be identical with what is passed upon brimstone, phosphorus, or any other ordinary combustible when it burns with flame. Indeed, the metal tin burns with a surrounding glow, which resembles flame so closely as to have hinted the rest of the secret; no secret now-a-days, since we have metals which take fire when thrown into water, and since we burn iron-wire in oxygen like a wax-match in the air; but a great attainment for the day, or rather the morning twilight, in which it was first made. Thus, then, in brief, was the whole science of chemistry, as it then stood, classified under two distinct and intelligible parts: the study of bodies before combustion, and that of bodies after combustion, implying of course the study of the vital act of combustion itself; a very true and useful division so far as it reached, and certainly most important for the exigencies of the epoch. The chaos of chemical fact was thereby reduced to intellectual order, and made to revolve round one great phenomenon as a centre. Similar things were brought together in spite of apparent dissimilarity, while unlike things were duly separated, notwithstanding of superficial resemblances, and a genuine reformation or new creation was fairly begun, with amazing sagacity and intelligence. It is surely difficult to understand how men like Dumas and Liebig (to name no smaller names) can content themselves with asserting that chemistry began with Lavoisier, except by supposing them wholly destitute of the historical sense, and incapable of seeing that their own rockfast-Lavoisierianism is also doomed; not indeed to be overthrown (for nothing that is partly true can ever be wholly overthrown), but superseded just as completely as phlogiston, alchemy, or polypharmacy. It would be quite as rational for a geologist to date the origin of the visible world from the tertiary series, or the diluvial beds of Paris and London, as to trace the rise of chemistry no farther back than the great Parisian lawgiver of the science.

But the old chemists of whom we now speak were of course not satisfied

with the discovery of the true analogy that exists between the metallic calces and the acids, and their consequent new classification of bodies; but they proceeded to interpret the phenomenon of combustion itself, that seemingly sole and singular agent of chemical transformations. Nor was an interpretation far to seek, although it required astonishing ingenuity to apply it right and left, so as to compact the rude and disjected members of a growing chemistry into one luminous body of scientific thought. It has already been hinted that Greece has ever been the Ariadne with the clew to the labyrinth it behoves him from time to time to penetrate. The notion that fire is an actual and substantial, though subtle element of nature, was first kindled by Empedocles long centuries before Christ: before it was handed over to the Arabians, it had begun to flicker, and it played a very small part in their doctrine: brought back to Europe, and fanned by the scholastic philosophy, it shot up its flames once more; but it was now destined to quicken the whole mass of chemistry; and impart that *callida junctura*, or glowing unity to all its parts, of which they again stood more in need than ever. The matter of fire was at length set apart and consecrated under the illustrious name of phlogiston.

It is impossible to prosecute this interesting subject any further in the present connection. Having fairly traversed the epoch of chemical history ostensibly under consideration, and having even crossed the boundary which separates it from its immediate successor, we leave the greater part of the story untouched. Suffice it that an affectionate yet critical study of the successive schools, and their respective leaders, would certainly prove as interesting as that of the Greeks, the Arabians, and the European alchemists; while it might be still more instructive. The phlogistians, the pneumatic chemists, the Lavoisierians, the atomicians, the electro-chemists, and the votaries of the new organic chemistry, have all brought us their proper trophies and treasures; and the investigation of their several histories and characteristics could not fail to be fraught with the noblest lessons of courage, perseverance, and devotion.

THE LOST LAIRD.

A TALE OF '45.

MORE than four months had passed since the fatal day of Culloden; not only had the disaffected districts been treated with merciless severity by the commanders of the English army, but atrocities had been perpetrated, which had long been unheard of in civilised warfare, by the parties of soldiers despatched in all directions to disarm and lay waste every part of the country in which the Prince's cause had been espoused. 'Before the 10th of June, the task of desolation was complete throughout all the western parts of Inverness-shire; and the curse which had been denounced upon Scotland by the religious enthusiasts of the preceding century, was at length so entirely fulfilled, that it would have been literally possible to travel for days through the depopulated glens without seeing a chimney smoke or hearing a cock crow.' The continual escape of Charles Edward, which seemed little short of miraculous, doubtless tended to exasperate the feelings of his pursuers, and to add cruelty to their conduct, when every fresh disappointment proved the inadequacy of their best-concerted plans against the determination of the clansmen to protect him.

'After the escape of the Prince through the cordon between Loch Hourn and Loch Shiel in the latter part of July, the military powers at Fort-Augustus seem scarcely ever to have got a ray of genuine intelligence respecting his motions; and his friends, all excepting the few who attended him, were equally at a loss to imagine where he was, or how he concealed himself.' The forest of Badenoch, in the wildest and most rugged part of the Highlands, meanwhile had given him shelter, in the company of his friends Lochiel and Cluny, to visit whom he had undertaken so toilsome and dangerous a journey.

Amongst those in the neighbourhood of the glens in which he now wandered, none were less aware of his retreat than the family of Mr Morrison of Dalcairdie: they had hitherto enjoyed comparative peace, although living on the extreme verge of Forfarshire, not far from the roads leading from Inverness to Perth and to Dundee. This had been owing to Mr Morrison's steadfast refusal to bear arms in a cause which he, in common with many other Highland gentlemen of established character and prudence, had predicted would end disastrously both for Scotland and for the House of Stuart. He had thus often been enabled to gain some mitigation of the cruelties practised by Duke William's emissaries; and his wife, building her hopes on the same foundation, had with great difficulty ob-

tained his consent to her undertaking a journey to Perth, to solicit from the Earl of Loudoun a pardon for her brother, who had been taken prisoner, and was there in jail awaiting his fate. The duke had some time before her arrival passed through the city, so closely surrounded by his officers as to preclude all chance of his receiving the petitions even of those who, desperate in their love and their fear, had thrown themselves on their knees almost beneath the horses' feet; and he had left behind him spirits as reckless of suffering as himself. Mrs Morrison failed in the object of her journey; but she obtained a protection for her husband's tenantry, with which she trusted to return home in safety during the first week of September. The autumn day was unusually bright and balmy on which she was expected back, under the escort of her faithful servant Allan Maxwell; and the spot she loved best on earth had never looked more calm and beautiful than it did when her husband and their only child, a boy of five years old, stood together on the terrace of the small French garden to the south of their dwelling, anxiously looking out for some notice of her approach. It was natural that, under such circumstances, Mr Morrison should feel unable to apply himself to business of importance which lay before him; and he determined, after writing a letter in his study, to proceed at once on horseback, in hopes of meeting her. He accordingly summoned Janet Maxwell, Allan's wife, to take his child, who clung perseveringly to him in spite of her promise to go with him to 'the bonnie burnie dale,' as he was wont to call a pool, in a sequestered dingle at some little distance from the house. It was formed by one of those innumerable mountain streams which fertilise the valleys embosomed in the spurs of the Grampians; and there his mother often took him to swim his nutshell fleet upon its deep and sparkling water. The long tract of fir-wood which darkened the hill at the back of the massive and irregular mansion, lent the charm of contrast to this spot: for it was overhung by a group of graceful forest-trees, whose shade kept the grass there always green, and whose gnarled trunks were garlanded with climbing shrubs, which Mrs Morrison had planted. Here and there the water had worn away the earth from their roots, and fretted them into mimic caves, in which Kenneth harboured his boats. He had once more launched them on the pool, and was busily engaged in his sport, when his quick ear detected a slight rustling in the thicket, which rose abruptly on the opposite side of the dell.

'Oh! minnie, minnie; is it you?' he cried; and at the same moment his nurse, with instinctive precaution, caught him in her arms. Scarcely had she done so, when two strangers emerged from the wood, and stood on the narrow ledge just before her. Both were travel-soiled and meanly clad; the one who addressed her, and asked if Mr Morrison was there within, spoke in Gaelic, thick and hurriedly, as if breathless from exertion. His companion was a young and handsome man, whose air of distinction, in spite of his attire, struck her practised eye; and she felt assured they were some of the skulking gentlemen, whose whereabouts she had heard of from the country people in the fastnesses of Benalder. She answered in the affirmative; and they immediately disappeared.

Janet was about to follow them to the house with Kenneth, whose wondering eyes were still scanning the place where they had stood, when a

clang of armed men, and the sound of English oaths, was heard in the wood, the matted branches of which opposed a considerable barrier to an approach from the west. Janet's determination to give no assistance to any in search of the fugitives she had just spoken with, was strengthened by the uncertainty which attended the concealment of the Prince, to betray whom would have been, in her estimation, a crime of the deepest dye. The resemblance of the youngest of the strangers, in the short brown coat and clouted shoes, to the gallant young commander whom she had seen, some months before, leading his army towards Inverness, with his glittering star shining on his breast, and his light hair floating on the breeze, as graceful a hero as ever won favour in woman's eyes, had flashed on her recollection the moment he turned from her. As these thoughts passed through her mind, several of the soldiers issued from the thicket; one of them missed his footing as he scrambled over the broken ground, and fell at the edge of the pool. This accident attracted the attention of his comrades, who now observed her, and demanded rudely of her whether she had seen any one pass through the grounds. To their inquiries she only answered in Gaelic, and they were too hotly in pursuit of their prey to waste many words upon her. A few minutes had now elapsed since the appearance of the fugitives, who meanwhile had gained the house, and entered the room in which Mr Morrison was writing. None ever heard the particulars of that brief interview; it was only known afterwards that he led those who sought his protection through a back-door, and along a short path which led to the fir-wood: from it was a continuous tract of wood and fell, reaching far towards the heights of Ben Uarn, where no footsteps but those of the Gael might follow theirs. As Mr Morrison re-entered his house, he heard the brutal voices of the dragoons, who, with determined purpose, were closing round it. He went out to them with a calm and authoritative air, which for a moment awed men accustomed to discipline, and demanded whom they sought, and what they meant by behaving in so outrageous a manner in a peaceful dwelling?

'We want no warrant,' answered one, 'for searching a house which is a harbour for rebels; and find them we will, if we burn it down, and smoke them out like rats.'

'If the Pretender is not here,' said another, 'I'll never believe my eyes again; for as sure as my name's Jem Short, I saw him, and no other, go round the hill on the other side of the wood, and make for this place.'

'Ay, ay!' shouted his companions; 'why do we stand palavering here with a Scotchman while they may be getting off: come, fair play or foul, set to work!'

'Set to work, and welcome!' said Mr Morrison: 'my loyalty never yet has been questioned; my people have not one of them joined the insurgents; nor is my house a shelter for them. I will myself give you every help in searching it, and direct my servants to shew you the way through the woods.' So saying, the laird, with the assistance of a dozen retainers of all ages, commenced an active search, not only through every hole and corner of his rambling dwelling, but likewise in the grounds, taking especial care of course to make it most energetic in the direction most contrary to that pursued by his late visitors.

The small party of Hawley's dragoons who had first surrounded the

house was speedily augmented by a larger detachment, who came straggling up, as they were able, on horseback, over the uneven ground—their long, loose skirts flying behind them as they rode, armed with huge holster-pistols and carbines, and their appearance giving altogether an impression of resistless force to the little band of servants and labourers who witnessed their approach. At first, the certainty of success, and some respect for the Laird of Dalcairdie's character, induced them to proceed with tolerable decency; but by degrees, as it became evident that their intended prisoners had escaped them, their indignation knew no bounds, and the most savage threats resounded on all sides. They insisted on his accompanying them to head-quarters; and on the passionate protestations of their comrades, that they had tracked the Prince to the very borders of the estate, two of the most ferocious amongst them bound Mr Morrison by his long hair to the tail of one of the horses, and set off with him at full speed from his hall door. Past the trim garden, down the hill-side, close by the dingle where his child remained hidden amongst the trees, rushed the frantic rout of men and horses, dragging to his horrible death one of the gentlest and bravest hearts in all that desolate land. Long afterwards, the track was shewn which had been marked by Alexander Morrison's blood. It broke off at the door of a farm-house, whose master had brought out all his money to induce the soldiers to set his laird on horseback, dead or dying as he was: they took his pouch of gold, and raised the disfigured body before them. They were becoming calmer, like madmen when blood has been shed, when they entered the long straggling street of Blairgowrie late in the evening. Here the road from Perth joined that which led southward to Dundee, whither they intended to carry their victim; and here they met a cavalcade, consisting of a lady riding on a pillion behind a well-armed and athletic man, and four servants who followed her.

'Let us turn aside, good Allan,' said the lady, 'while these soldiers pass. I cannot look on arms and disorder now as I did before I had secured my husband's safety: my courage seems to fail as I get nearer home, and have less need for it.'

'Nay, madam,' answered the servant, 'you have now nothing to fear: any insolence offered to you would meet with military punishment.'

'Alas!' replied his mistress, 'consider the scenes we have witnessed, and the more frightful ones we have heard of! What warrant or semblance of justice do the English troops require, when once their passions are let loose?'

'They are coming from Dalcairdie,' said Allan; 'there are some of our people in the rear.'

'Heaven grant,' cried Mrs Morrison, for she it was, 'that no disturbance may have happened there!' As she spoke, her pale face became livid with terror, her blue eyes were distended with the intensity of her gaze, as she fixed them upon an object partially covered with a plaid, which Allan could scarcely comprehend.

'It is a wounded man,' he said, 'whom they are bringing along.'

'Dead!' cried the lady. And it seemed as though the word had frozen her lips as it passed them, for she then remained speechless, steadfastly looking forwards.

Allan dismounted to help her, but she urged on the horse, and was

instantly surrounded by the soldiery. Her only thought was to reach her husband's corpse, to see if human help was indeed no longer of avail. And the ruffians whose hands were red with murder felt her agony; they suffered her to draw near, and one covered the face, which even they were unwilling the wife should look upon, telling her at the same moment that all hope was over. Their conduct towards Allan and his comrades was, however, very different; and as the tumult increased in the little town through which they were passing, Mrs Morrison roused herself from her trance-like grief, and spoke in accents of mingled entreaty and command—'Let no more blood be shed: enough cries out to Heaven for vengeance to-day! Only give me a place where the dead may be laid—I have no more to ask.'

Her prayer was granted; and men who would have scorned an hour before to have been thought accessible to pity, now bore Mr Morrison's corpse into the nearest house, and rode on, leaving her alone with her own servants and its inhabitants, taking, however, Allan Maxwell with them, as a suspected person, to Dundee. Scarcely had they departed, before the throes of bodily suffering were added to the unhappy lady's affliction; and then there followed a struggle with whose mortal agonies no hope was mingled; and as the chill gray morning dawned, it revealed the shades of death upon her face as clearly as on that of the still-born infant lying by her side.

It was a smothered howl of rage and sorrow that rose that morning at Blairgowrie, and was echoed at Dalcairdie, where, towards noon, the corpses were borne with as little show as possible, and laid in lowly state in the dining-room, with a large sheet thrown over them, which fell round the tressels upon the floor.

Janet Maxwell's anxieties, meanwhile, were divided between her care for the dead and her fears for the living. With a fidelity not uncommon in her class in Scotland, she determined to sacrifice every other object to the safety of her nursing, young Kenneth Morrison. She had heard that the soldiers, in their disappointed rage, had vowed destruction to all belonging to the family and the House of Dalcairdie, and she now apprehended their return, both to ransack or burn down the dwelling, and to carry off the child. Nor were her fears ungrounded; for the day had scarcely closed in before a number of the dreaded dragoons arrived. They found the house empty, and proceeded to regale themselves on the provisions they met with, to tear down the hangings, and pack up the stores of fine damask on which the mistress was wont to pride herself, and to carry off the massive picture-frames. None the less peacefully for the tumult that filled the house, slept its infant heir in the arms of his nurse. She had given him a sleeping-draught; and then, strange as the expedient appears, had crept with him under the cloth which covered the remains of his parents, and the infant on its mother's arm, arranging it, however, so as to leave their forms visible. The funereal tapers burnt round them, but there was nothing left in the apartment that could excite cupidity; and although the door was rudely opened more than once, the unlooked-for solemnity of the scene had so powerful an influence, that it was immediately closed again; and all that long night, Janet's retreat remained sacred and unsuspected. At last she heard the welcome sounds of the departure

of the soldiers; and then she tarried no longer, not even to see the dust of those for whom she would have laid down her life committed to the grave; but tying up a bundle of linen, and hiding some money about her, she set forth on foot, leading Kenneth, whom she had dressed as a peasant's child, by the hand. They had a long and weary journey to Edinburgh, cheered, however, by the glad tidings of Charles Edward's escape to France, soon after his perilous visit to Badenoch.

It may be that Janet's alarm for the safety of her charge was exaggerated; but being a woman of strong determination, as well as of warm fancy, she succeeded in impressing it on the mind of his only near relation, a maiden lady living at Edinburgh, Miss Grizel Morrison, and persuading her that his only chance of reaching man's estate would lie in his being unknown during his short stay under her roof, and his being educated in France. Miss Morrison accordingly undertook the charge of conveying her nephew to St Germain, where she placed him in the family of Lady Lucan, an Englishwoman, possessed of some fortune, whose parents had gone into exile with their sovereign; and whose own interest in Kenneth was fully awakened by his father's tragic fate. All connected with him seemed destined to share somewhat of the same horrors. His aunt having seen him happily settled with his new protectress, was returning to Scotland with the papers she had had drawn up at St Germain, duly attesting his right to his family estate, when the diligence in which she travelled was attacked by highwaymen near Abbeville. Some of the passengers were killed, and all their property was carried off or scattered. Poor Miss Grizel Morrison received only a slight wound, but it proved fatal after a few days' illness; and by her death Kenneth was left, with no legal proofs of his identity as the Laird of Dalcairdie's son, to the charitable care of Lady Lucan.

Allan Maxwell had been set at liberty after eight months of captivity in the crowded prison of Dundee; he then sought his old home at Dalcairdie, expecting to find only a ruin where he had left peace and abundance. How much was he astonished to see new faces in the familiar place; to hear a new language; to find, in short, the estate transferred in that brief space to other owners, and a distant cousin of his master's, James Morrison, merchant of London, installed in full possession of the family property. Few of the former tenants were left; but in a cabin belonging to one of these he found his faithful Janet, whose presence beneath his prison walls had cheered and assisted him from the time she had provided for the young laird's safety till within a few days of his release. Her tale was told in few words, and consisted chiefly of the relation of the ravages of Hawley's brigade in that part of the country. Under pretence of avenging the escape of the Prince, they had dismantled the village of Dalcairdie, turning out its defenceless inhabitants to the shelter of the wintry hills; many had been shot on the mountain-side in mere wantonness; the cattle and provisions of all sorts had been carried off to the camp, and numbers had perished for hunger. Under such circumstances, it was scarcely a subject of regret to the unfortunate tenantry of the late laird, that one of his name, Englishman though he was by birth and education, should come to the estate; for they hoped to gain from him something of the

protection to which they had been accustomed from the lords of the soil: nor were they wholly disappointed. Janet Maxwell, who had remained hidden in the remote hut to which she had betaken herself, speedily induced her husband to go with her into the neighbourhood of Dunkeld, to the house of a friend of her master's, Mr Lindsay of Kincaldrum, in whom alone she thought she could trust. By slow degrees quiet was restored in the neighbourhood under the auspices of Mr James Morrison, who was a stanch Hanoverian; and his ignorance of the language and habits of his people assisted him in the comfortable assurance, that no lurking suspicion of the justice of his claim was left amongst them. In a time so troubled and sanguinary as that we have described, the strange fate of Miss Grizel Morrison excited little interest beyond the circle of her friends at Edinburgh, who had all more immediate subjects of anxiety or sorrow; and as the object of her journey to France had been unknown, the whole story, united with that of her unfortunate relatives, was soon mixed up with a mass of false statements, and in a few years almost forgotten.

Kenneth meanwhile grew up to man's estate, under the watchful care of Lady Lucan, and that of an old Episcopalian clergyman named Ross, who performed the duties of a domestic chaplain amongst some of the English families resident at St Germain's. His pupil acquired an education which was far more suited to polish the manners and to give elegance and activity to the mind, than any he could have obtained in either the English or the Scottish schools. He was a noble and high-spirited youth; but from the time in which he heard the tale of his father's murder, and of his mother's broken heart, a shade of melancholy came over him; and the uncertainty of his future lot inclined him more and more to indulge in those romantic dreams which shed so fair a colouring upon the morning of life, and fade away so soon into the common light of the work-day world. Janet Maxwell had long become a widow, and still lived in the family of Mr Lindsay, who had immediately given her a home in his house on hearing the portion of her story which she chose to disclose, and intrusted his only child to her care—a beautiful little girl named Marion, who was then only two years old. Janet had set her heart on Kenneth's existence remaining unknown at Dalcairdie until he was of an age to enter on the possession of his birthright; but she occasionally dropped mysterious hints to Marion of the certainty of his return from some foreign land (and France and Persia seemed about equally distant to her) to claim the estate of his forefathers, and with it, like the enchanted prince of a fairy tale, the hand of her Snowdrop—her sweet Marion Lindsay. At nineteen, Marion's affections were free; and it was but natural that her imagination should be captivated, for there were none of the young men who frequented her father's house who could bear a moment's comparison with the picture she had formed in her own mind of the lost Laird of Dalcairdie. When she chanced to hear an allusion to his supposed death or mysterious disappearance on the night of the murder (for Janet had invariably protested her ignorance of his fate), she felt personally aggrieved; and though in her childhood she had often spoken of him and of his return home, she now preserved a silence on the subject, at which she sometimes blushed and smiled alone. Little did she imagine that the eventful moment had arrived in which her

vision was to be realised or for ever dispelled, when a servant came to her, one evening in August, to say that a strange gentleman was in the oak parlour waiting to see Mr Lindsay. She had been flitting backwards and forwards amongst her flowers in her own favourite parterre, and she now went in through the open window of the sitting-room, where her mother sat at work, and roused her father from a gentle doze into which he had just fallen over an old number of 'The Lyon in Mourning,' in his huge arm-chair; and having discharged her duty of sending him to his visitor, she resumed her occupation without more than a passing thought of who that guest was likely to be. The room into which the stranger had been shewn was a long, low apartment, raftered with black oak, and lighted at the farther end by a latticed bay-window. As he stood by the casement, with his head half-turned towards it, and his graceful figure outlined against the golden western light, Mr Lindsay entered, still in a dreamy mood; and the first sound which arrested the attention of his guest was one between a groan and an ejaculation, uttered from the recess of an Indian screen which stood before the door: he beheld Mr Lindsay holding on to it with one hand, while he held out the other in a deprecating attitude. Thus made aware of his presence, he advanced towards the centre of the room, with his native ease of manner somewhat embarrassed by the singularity of his reception; but scarcely had he spoken, when his host exclaimed in a voice husky with emotion, 'Stand where ye are, man, and tell me your name!'

'I presume,' he replied, in tones that were certainly of this living world, 'that I am addressing Mr Lindsay?'

'Ay, ye know it well,' answered the latter.

'Then to you, my father's oldest and dearest friend, I reply that my name is Kenneth Morrison of Dalcairdie; and that I am come to you to claim your hospitality and assistance for his sake.'

'There is not a son of James Morrison living,' replied Mr Lindsay doubtfully; 'and if there were, he is no friend of mine.' But as if convinced that his visitor was at least not a ghost, he also came forward a few steps.

'No,' said Kenneth; 'my father has long slept in a bloody grave. I have been only a few days in Scotland; but I bring letters from Lady Lucan—whose name at least you know—at St Germain's, and from the Rev. Mr Ross, once an Episcopalian minister at Perth, which must serve as my credentials.'

'You have need of none to me, I think,' cried Mr Lindsay. 'If I had not proved myself a fool already, I would say, Trust in me you may! Your hand, my boy! Let me look in your face. Who shall tell me after this that Alexander Morrison's son does not stand here before me, with his mother's two blue eyes looking out at me? Surely, I thought, if the grave might give up the dead, it was himself come in the gloaming to the old room in which we parted last!'

'Mr Lindsay,' he said, 'I must not for a moment mislead you. Strange as the fact may appear, I am informed that I have no legal proof of my own identity: such is the opinion of Mr Ross, in whose judgment I have reason to confide; such will probably be your own when you have heard my history.'

'A fig for lawyers!' exclaimed Mr Lindsay. 'But, my dear boy, you shall tell it to us all. My wife and Marion must hear it; ay, and old Janet too. Janet!—I might have thought of her before!' So saying, and scarcely apologising for his abrupt departure, the Laird of Kincaldrum left the room; and being left once more alone, Kenneth—after glancing along the book-shelves near the window, as every lover of reading must mechanically do—occupied himself in scanning the features of the view which spread before it. But once more his meditations were interrupted by an unusual greeting. He had scarcely turned his head, on hearing footsteps approaching, when he saw with Mr Lindsay an old woman of low stature bending forwards with her keen eyes rivetted upon him, under the shade of the tartan which she wore over her snow-white cap. In another moment she gave a piercing cry, and then sprang towards him as a dog would fawn upon a long-absent master.

'Janet!' cried Kenneth, throwing his arms round her, and stooping to kiss her pale forehead: 'many years have passed since you watched over me; but I feel it is indeed like coming home to find you here!'

'Who shall doubt now,' cried Kincaldrum triumphantly, 'that our ain bairn has come back to us? Come, come, Janet; we must have no tears! All should look bright upon him, and you most of all; for was it not to you he owed his safety? Woman, you have trifled with us over-long! But I had always some suspicion of the truth that you had a knowledge you did not choose to declare!'

'The time is come to declare it,' said Janet; 'but first let me see him better for myself.' She drew him towards the fading light, as gently as if he had been a child still, and made him sit down on the low window seat, while she passed her withered hand through his luxuriant hair and over his face. 'I could swear to him now,' she cried, 'were I blind! The righteous tell, but he was not forsaken; and lo! his son is raised up in his stead! Oh, blessings on the day which has brought Kenneth Morrison back to wed the Snowdrop of Kincaldrum!'

'I desire, Janet,' said Mr Lindsay, 'that you will utter no more of your fancies on this subject: I warn you that they are most displeasing to Marion, as well as to her mother and myself.'

In perfect ignorance of what sort of damsel his destined bride might be, Kenneth could not avoid smiling at the whimsical turn Janet's thanksgiving had taken; especially as Mr Lindsay appeared exceedingly annoyed, and as the old woman kept muttering, 'What is decreed maun come to pass, let wia will try to hinder!' But she was now hastily dismissed, with injunctions not to spread the news through the house—a caution which greatly offended her, having, as she said, 'Kept the secret of her bairn's very existence close enough for many a weary year already.'

'Not so closely as she thinks, poor old body,' observed Mr Lindsay; 'though, to be sure, I was rather taken aback by the unlooked-for resemblance to your father when I first entered the room. Now that will be a good proof to the lawyers, I think, when we come to the point. We may as well keep our own counsel now, and not set James Morrison on the scent too soon; for he is as wary as a fox, and will require canny dealing.'

On reaching the room in which we left Marion and her mother, Kenneth perceived at a glance that they were already informed of his name, and

were awaiting his appearance with some agitation. Mrs Lindsay, whose heart was always open to every motherly feeling, was ready to welcome him with overflowing eyes, and to give him full credit for all Janet's praises. Marion neither blushed nor looked conscious when he turned from her mother's greeting to address himself to her, for she had suddenly felt her day-dream vanish into thin air in his actual presence; not because he was less handsome or pleasing in manner than she had expected, but because it was a very different thing to form a picture in her own mind from all ideal excellences, and to behold before her a young man who bore the impress of good sense and good breeding in every tone and gesture, but who, she instantly felt, might very probably never think of her at all. She was surprised at the ease with which she now conversed with this hero of her fancy. And Kenneth, in his turn, thought her frank and simple manner as winning as the sweetness of her countenance. During the hospitable supper, which was soon set before the young guest, the conversation naturally turned on the scenes in which he had passed the greater part of his life; and he described the little English and Irish colony at St Germain's, with all the peculiarities of their situation, and dwelt on the chivalrous feelings which had led to it, in language that went straight to Mr Lindsay's heart.

'Ay,' he said, 'I knew almost all who are living there now in poverty and exile, when their youth was full of hope and enterprise: gallant hearts they were as ever beat; and age cannot much have changed them.'

'It is touching,' said Kenneth, 'to see how little they have altered; how deep their love is still for their own country; and how proudly they cherish the memory of their prince, as he once appeared among them, though report speaks gloomily of his present life'—

'I'll not believe it!' interrupted Mrs Lindsay: 'he has borne his weird many a year, with misfortune and disappointment for his companions; but he is our own king's son—a true Scottish prince in heart, I'll answer for him; and time will shew that we've no call to sorrow for one drop of the blood that has been shed, one spell of the suffering that has been borne, for his sake!' Here the Lady of Kincaldrum, overcome by her own warmth, burst into tears; and Marion, rising, went to her small harpsichord, and struck a few notes of the well-known air, 'Charlie is my darling!'

'The words—the words, my lassie!' cried her father; and she sung them with a mixture of enthusiasm and of thrilling pathos which Kenneth never afterwards forgot.

'You spoke just now of Duncan Ross,' said Mr Lindsay, as she concluded; 'his testimony will carry great weight with it to all who knew him.'

'To none will it seem weightier, I imagine,' replied his wife, 'than to our excellent friends, Mr Grant and his sister Miss Isobel: they were too great friends once, ever to have forgotten him. That was one of the many stories of sore tribulation that belonged to the rising of '45: you'll have heard of it, Mr Kenneth?'

'No, indeed,' answered Kenneth; 'I know little of Mr Ross's early history.'

'It is an old-world tale now,' continued his hostess; 'but Duncan Ross as a young minister most highly thought of, with prospects of advance-

ment second to none of his age, when first he won the heart of bonnie Lillian Grant—that was Miss Isobel's younger sister. Well, they just waited year after year for a presentation, as young folk must often do, till about the time the Prince came to Scotland, and then Mr Grant was appointed to the Old Church at Perth. There was much rejoicing that day; but it soon came to an end; for there was not the heart in him that he could have read the Duke of Cumberland's proclamation, threatening with death all who concealed the poor fugitives from Culloden; and so, by reason of his silence, he was led away a prisoner the very Monday he should have been married. Lillian saw him as they took him past her father's house, and there was a glint in her eye, as if she triumphed because of his honour: but she never smiled again. He was put into an awful prison-ship in the Thames; and when at last he did escape to Holland, the first news that reached him was, that she was dead. You'll not wonder after this that a letter from him will reach the hearts of Mr Grant and his sister.'

'It is a story,' replied Kenneth warmly, 'to make his word sacred for ever; but he cannot give them such information as you might naturally expect. Lady Lucan invited him over from Holland, chiefly, I believe, to take charge of my education, whom she had so generously befriended; and when he arrived, I was nearly six years old. Here, however, is my honoured tutor's letter, as well as one from Lady Lucan.' So saying, Kenneth gave to Mr Lindsay two large letters, each secured by a thread, and also by double seals: he took them in silence, and began to study their contents with the air of a man whose mind is made up. Meanwhile Marion spoke in a low voice to her mother—'If, as you suppose, the recollections of past days have much weight with Mr and Miss Grant, surely their affection for Gertrude Morrison will have yet greater. They will be most reluctant to believe that she is no longer the rich heiress she has been thought, and to see her turned out of her beautiful home where she is so justly beloved. Poor Gertrude, how little she thinks what lies before her!' Marion at the moment felt as if she could have wished Kenneth safe back at St Germain's, and turned her dark-gray eyes almost reproachfully towards him.

'May I ask, Miss Lindsay,' he said, 'of whom you are speaking? I could not avoid hearing your words, and they have made me fear that I shall be beset with even more difficulties than I had apprehended, though of a different kind. I confess that Mr Morrison's probable objection never appeared to me a very formidable one, seeing that he has enjoyed my property now about sixteen years.'

'You must know, then,' replied Marion, with her cheek glowing as she spoke, 'that he has one daughter left out of a large family, and that his affection for her is at least a redeeming feature in his otherwise cold and selfish character. So we used to think of him; but even there we may have been unjust'——

'Your father was never unjust to any one, my bairn,' interrupted her mother with an accent of mild reproof.

'Never willingly,' continued Marion; 'but surely we knew neither him nor Gertrude till last summer, and then did we not all judge more favourably of him for her sake? At three-and-twenty she was left alone in the world with her father; one sister after another, to whom she had supplied

a mother's care, died by her side: at last her only brother went too; and yet I ought not to say that even then Gertrude was left quite alone, for she is surrounded by people who owe her everything, and love her as she deserves; and she has one friend who would lay down her life for her; and that is Miss Grant. You will think, Mr Morrison, that I am going to describe a perfect heroine of romance, from whom to claim your own would be unworthy of all knightly honour; but on one important point I can set your imagination at rest—(Gertrude is not beautiful.' Kenneth smiled in answer to Marion's smile, which softened the glow of enthusiasm with which she had spoken. Was it so, that the consciousness of his eye being fixed on her own eloquent features, made her heart beat quicker, and her cheek flush again? If so, the emotion passed as rapidly as it had arisen; for a new thought had taken possession of her active mind; and it lent a softer light to her countenance as she repeated, bending her head over some work she had taken up from the table, 'Gertrude is not beautiful: who that knew her would ever think of that?'

'I like, of all things,' said Kenneth gaily, 'to hear one lady describe another. Tell me what she is like? Did you see her at Dalcairdie?'

'No,' replied Marion: 'that is the last place in Scotland my father would have wished me to go to: though, indeed, Gertrude did most kindly ask me there. I only saw her with her friends the Grants. As to her face, I cannot describe it; no one would think of painting such a one: but if an artist ever did give a correct idea of it, I should say he deserved a place with those grand old masters who painted the spirit shining through the material part.'

'Bless the bairn!' exclaimed Mrs Lindsay, 'what is she after? You have a most pleasant voice, Marion, my dear; but what your words signify I know not; and you are not used to talk with so little meaning.'

Kenneth looked, however, as if he quite understood her. Mr Lindsay had by this time completely studied the letters he had given him, and now looked up with a puzzled expression which did not escape his daughter's observation. 'I should certainly prefer,' he said, 'consulting Mr Grant before we take any decided step in this business. He is as great a friend of the Morrisons as if he were sib to them; but there is not a man for all that whom I would sooner trust, for he always sees straight into the heart of any matter that is set before him. It appears that there is legal proof wanting, that you, Kenneth Morrison, whom Lady Lucan testifies to having received from the hands of Janet, are the same who three months previously disappeared from Dalcairdie; and therefore it behoves us to have recourse to one who knows the law, and yet can discern more than what law-books can tell.'

'Such is the judge I would choose,' replied Kenneth; 'and I commit myself to your guidance most willingly.'

'We should set out in good time to-morrow,' said Kincaldrum; 'but before we separate to-night, give us one more song, Marion, and let it be the one you used to be so fond of—'

"I hae nae kith, I hae nae kin,
Nor ane that's dear to me."

Marion sung as she was requested, but her voice faltered for a minute,

till the exquisite melody seemed to inspire her; and then as she went on, Kenneth asked himself whether it had happened to him, as in an Eastern tale, that he had dreamed of the lovely form which now for the first time was near him. He had indeed been haunted by a vision of beauty and of grace; for he remembered his mother, and all that was most noble and purest in the character of woman had woven itself in his mind round that dim soft image, till it had become a spell to guard him from every unworthy passion. Strangely it rose before him while Marion sung, and surrounded her with its sanctity. Where had he heard her voice before? When she ceased, he drew a long breath, but no words of compliment would come to his lips.

'You doubtless know that song?' said Mr Lindsay, trying to look perfectly unconcerned.

'I have often heard it,' replied Kenneth, 'amongst the English in France; but as Miss Lindsay sung it now, a recollection of home, of my father's house, came over me with wonderful distinctness. I could almost have fancied myself a child again, playing by an open window that looked out over a broad valley, in which gleamed distant waters. Yes! the sun was sinking behind a group of dark trees to the left, and I was told of the blood that was poured out in Scotland like water. The river looked blood-red while Janet—for she I believe it was—spoke to me. Miss Lindsay, you are a sorceress from my native glens, and your power has been exerted to-night to bring the long-forgotten past before me!'

'Accuse Janet, then, of witchcraft, rather than me,' replied Marion. 'She taught me that melody almost as soon as I could speak; and I have no doubt given it the peculiar character of her singing, which used to be wild and plaintive in no ordinary degree.'

At that moment the door opened, and Janet made her appearance.

'I was coming ben,' she said, 'when I heard Miss Marion singing, and I stopped on the stairhead to hearken. It was just my own sweet leddy's song that she lo'ed sae weel, and that I taught my Lily because she lo'ed it, and for anither reason too. But the weird in a' things maun come to pass that has begun this night. But eh, Kincaldrum, I wonder at you keeping up the bairns this late, and that puir lad sae weary wi' his lang travel!'

'Confess now, Janet,' said Mrs Lindsay kindly, 'that you are longing to have him all to yourself in his own chamber.'

'I'll no deny it,' answered Janet.

But here Mr Lindsay interfered. He explained briefly to the old woman his purpose of accompanying Kenneth on the morrow to Dunkeld, to consult Mr Grant; and then exacted a promise from her that she would not again speak to Kenneth until their return, which she gave somewhat reluctantly. When at last Kenneth sunk to sleep on his snow-white pillows, he was startled at seeing her once more bend over him with her finger on her lips.

The following morning, after a substantial breakfast, which Mr Lindsay intimated might precede a long ride, Kenneth set off with his host to the neighbouring town of Dunkeld, from whence, indeed, he had come on the previous evening. They dismounted at the door of a large old house near

the cathedral, and found Mr Grant in the garden, taking his usual morning exercise up and down a trim gravel walk, which, being at the back of the house, overlooked the magnificent terrace on the east bank of the Tay. He was a little spare man, remarkably alert in all his movements, with a twinkle in his eyes, and a good-humoured expression about his mouth, which gave a peculiarly cordial character to the greeting with which he hastened forward to meet his visitors. Mr Lindsay had his business too much at heart to make any long introduction to the story he had come to tell, and the old lawyer was speedily put in possession of every fact with which he was himself acquainted. They had continued pacing up and down the garden, and Kenneth observed the effect of the communication on Mr Grant's cautious countenance, without being able clearly to decipher its expression. At length he stopped short in his walk, and looking full at Kenneth, he said—'Mr Morrison (for so I willingly address you), the subject on which my friend Kincaldrum has done me the honour to consult me is one more interesting to my sister and myself than you would readily suppose. It involves, at least to a great degree, the fortunes and future prospects of highly-esteemed friends. Such I reckon James Morrison, now of Dalcairdie, and the young lady his daughter. He begs me to inform him what I consider the surest means of turning them out of house and home, and I answer boldly—prove your right to the inheritance, and they will surrender it to you without hesitation, whether any mere law-quibbles interfere or not.'

'On no other grounds,' replied Kenneth, 'than such as may fully satisfy a candid and clear-sighted man, would I wish to stand for my right. Would it not be well that I should communicate at once with Mr James Morrison, which strikes me as the most straightforward course to pursue? I should then explain the singular promise exacted by Janet from my aunt, and considered binding by Lady Lucan and Mr Ross. This alone can account for the silence preserved with regard to me, and for my being known in France by no other name than Kenneth Lucan—a distant relation, as was supposed, of the husband of my benefactress.'

Mr Grant mused for a minute, still keeping his eye fixed on Kenneth's open countenance, and then answered—'No. I think the first thing to be done is to ascertain the degree of evidence that can be afforded by the people still living, with whom, according to Janet's account, those weeks were passed which intervened between the day you were carried from your father's house, and that on which you were placed under Miss Grizel's care. I am well assured that your cousin will yield only to such proof as will stand the clearest daylight; but to that, believe me, he will give up the broad lands he now holds as fairly as you could desire.'

'Then I entreat of you,' said Kenneth eagerly, 'let me set off this very day to obtain it! I feel that if only my claim were allowed, and my father's name borne in that place in which he died so foul a death, I could even be content to go into poverty and exile once more with a light heart'—

'No need for that, my boy!' interrupted Mr Lindsay. 'I entirely approve of our friend's suggestion, and I will myself accompany you to the Highlands, where'—

'I beg your pardon, Kincaldrum,' said Mr Grant; 'but before the journey is arranged, let me speak a word to you in private. Mr Morrison, I will

consign you to my sister's care for half an hour; she will be glad to hear of our friends over the water; and we, meanwhile, will consider the letters you have brought with you.' So saying, Mr Grant led the way into an old-fashioned parlour, which reminded Kenneth not a little of some he remembered at St Germain's. It was rich in two beautiful Indian cabinets, on the tops of which were ranged strange Eastern monsters, and rare old china; the oaken floor was covered only in the centre by a Turkey carpet; and from beneath the tall, slender-legged tables, rose large jars, which exhaled the perfume of a long summer of roses. This was Miss Grant's favourite sitting-room, and her brother did not venture to take his guests into it without special permission asked and received. Kenneth was then formally introduced to her as Mr Lucan, just arrived from St Germain's; and he observed the quick flush which passed over her faded features as she heard the name of the place which was associated with all her youth had held dearest, and all that was still most sacred to her feelings. She soon discovered Kenneth's connection with Mr Ross, from which moment he evidently gained great favour in her eyes; and the conversation passed rapidly over his long abode in France, his friends, and his pursuits, until, being somewhat careless himself as to whether his gentle hostess became aware of the object of his visit to Scotland or not, he perceived without uneasiness that she more than half suspected his parentage; but her abrupt reference to Miss Grizel Morrison was cut short by the entrance of her brother and Mr Lindsay.

'You will be surprised, sister,' said the former, 'to hear that I have accepted Kincaldrum's proposal to make a short journey with him, and with our young friend, to whom he is anxious to shew some of the beauties of our northern glens.'

'And how long do you mean to be absent?' asked the lady. 'Surely you have had rambling enough about those awsome lone places in your day to abide quiet now, like any other douce man at your time of life. 'I have heard tell, too, that there are threatenings of a flood through the glens.'

'We will aye hope for the best,' answered her brother cheerfully; 'only do you, Isobel, hasten our dinner hour. I have already sent to Mrs Lindsay for her husband's valise, and yours, Mr Lucan, I know is here; so that with stout ponies, and Donald for our man-at-arms, we shall return home—let me see, this is Tuesday—by Saturday at the farthest.'

Miss Grant was probably accustomed to peremptory decisions on her brother's part, for she made no farther objections; and within three hours of that time Kenneth had the infinite satisfaction of seeing all prepared for a journey which, Mr Lindsay informed him, would take him amongst some of his father's most faithful friends. The glorious sun of August was shedding its full tide of splendour on the woods and mountain scenery with which Dunkeld is encircled, when they set out on their proposed expedition. Miss Grant, having watched the little cavalcade—consisting of themselves and a couple of servants, well armed with hunting weapons—turn the corner of the street which led from her dwelling, sat down at her desk to console herself for her brother's unwonted taciturnity by inditing a long letter to Gertrude Morrison, containing, amongst other particulars of her domestic history, a full account of the young stranger, with a venture of a surmise as to his errand to the Highlands, which she

would willingly have retracted after the epistle had been despatched that same evening.

It was not long before the travellers found themselves at the entrance of the Pass of Killiecrankie; and as Kenneth looked up to the line of naked precipices, with the hanging birchwoods beneath, clothing the terraced sides of the lower hills, he thought no more fitting place could be imagined for those to hide in who sought to escape pursuit or detection.

'How many,' he said to Mr Lindsay, who was riding near him, 'have given thanks to God for the mountains during the troubled years that have passed over this poor country!'

'You may well say so,' he replied: 'there are safe enough corners here, no doubt, to play at hide-and-seek in; but they are not to equal those we shall see to-morrow. I did not "go out" myself, any more than my friend Grant; but I'll not deny my predilections were in favour of those who did; and many a queer visit have I paid before the affair was well blown over, in the country we are now coming to.'

'You have already led me to suppose,' said Kenneth, 'that I shall soon see some of my father's friends; but surely it is not in concealment that we are to look for them?'

'Scarcely in concealment,' answered Mr Grant from behind: 'but the man whom I wish first to speak to on this business leads a life which has exposed him to sundry perils from the magistracy; and yet I'll not say but that he is an honest man for all that. He is a cattle-dealer, and, as such, has need of more than one lodging amongst the mountains. It is much to his credit that, although he has been suspected many times of disloyal practices, no deed of violence or of fraud has ever been laid at his door; and partly from his skill in keeping out of the way in bad times, partly from his character for general integrity, Ewen Cameron has weathered the storm better than any one of his class; and though he himself is not often met with at fair or mart, his sons carry on business openly, and nothing is heard to his dispraise. We shall find him to-morrow somewhere on the lower hills of Benuarn.'

We may not linger on the road pursued by Kenneth and his companions: it was late before they reached the little inn above Clachag, at the northern extremity of Glen Tilt; and after the fatigues of the day, they easily contented themselves with such refreshments as it offered. Kenneth soon fell asleep, wrapped in his plaid; and the following morning they were again early on their way, fortified with some slices of dried venison and a draught of whisky. They now left the high road, and struck across the tracts to the east, which Donald, Mr Grant's favourite servant, was remarkably expert at finding: he was a kinsman of Cameron's, having married one of his daughters, who was now dead, and could generally tell his whereabouts. As they approached Benuarn, Donald hastened on to acquaint his father-in-law with their purpose, and returned in due time with a fine-looking young man, one of Cameron's sons, who delivered a courteous message from him, and led them to a narrow platform some little way up the mountain, where the old man stood ready to welcome them. He was dressed in the Lowland fashion: his snow-white hair formed a singular contrast to his weather-beaten complexion and keen dark eye, and he looked as if he might yet breast many a storm uninjured. He approached Mr Grant with

a friendly salutation in Gaelic, offering at the same time his broad muscular hand, which was cordially accepted.

'We are come, Ewen,' said Mr Grant, 'to speak with you on some matters connected with your past history; but I have no doubt your memory will serve easily to recall them.'

'You are welcome, Mr Grant,' answered Cameron, 'to any information I can give; and you and I have known each other too long not to know what bounds there are to confidence between us.'

As he spoke, there was a quick glance towards Kenneth, which was in a moment averted; and he pressed the travellers to accept some refreshments in the bothie he had near at hand. Two or three gillies now made their appearance, to whose care Cameron committed his guests' ponies, and then led them along a narrow path, which seemed to run into the very depths of the mountain. It turned suddenly round a huge boulder-stone, which served as a door to a small ravine, screened at the farther end by thickets of alder, birch, and holly, and enclosing a knoll of the softest verdure, on which stood a substantial mountain dairy. Some milch-cows were grazing near it, and the sound of falling waters was heard before they themselves appeared in sight, throwing upwards a shower of foam from the chasm which divided this fairy glen from the opposite heights. The greater part of it was cast into shadow by the overhanging portion of the mountain; but the sunlight fell full on the wooded bank on the other side of the torrent, and on the masses of blood-red granite which rose above it, affording here and there a footing to some fantastic pine, whose roots scarcely clung to the soil. A table was already spread with abundance of Highland cheer near the bothie, and Cameron's daughters, two rosy-cheeked lasses in holiday attire, waited on the guests.

After a little preliminary conversation, Mr Grant turned to the subject of his chief interest; but they found Ewen slow to speak of the events connected with the rising of '45. He continued to look from time to time towards Kenneth with evident curiosity, but refrained from asking any direct question concerning him.

'One object of our expedition,' observed Mr Grant, 'has been to shew our young friend the scenery of these mountains; for he has lived abroad nearly all his life, and it is all new to him.'

'He had best take a good walk with one of my long-legged boys,' replied Cameron, with a slight expression of incredulity.

'There is nothing I should like better!' exclaimed Kenneth eagerly. 'This place recalls a thousand confused recollections of my journey when a child, through a wild country of heath and wood. I could almost think I knew a cave somewhere along this track, where I slept upon a cloak thrown over the heather, and watched the morning light glimmering through a hole in the roof.'

'Eh, sirs!' exclaimed one of the girls, 'that must have been our first place here!'

'Peace, Effie!' said her father. 'Are you not ashamed of speaking before strangers when none spoke to you?' He fixed his eye more earnestly on Kenneth, and continued—'It must have been an unusual bed to you, sir, or you would not have remembered it so well. Should you recollect the names of any who were with you then?'

'No,' replied Kenneth: 'with one exception, I remember none.'

'And that one was?'

'Janet Maxwell,' he answered.

A glow of satisfaction lighted up Ewen's features at the words; but shewing only slight emotion, he rose from the table, and withdrew into the bothie, from whence he speedily returned, with his blue bonnet drawn over his brow, his plaid adjusted in a peculiar manner round him, and his whole appearance altered by the Highland dress he had assumed. Kenneth started to his feet as he approached.

'You were one who sheltered me then!' he cried; 'and it was not by your present name I knew you.' He put his hand across his eyes. 'Smith,' he thought; 'an English name, not likely; yet I cannot be mistaken.'

'James Smith,' he said aloud; and Cameron lifted his bonnet from his head, and took Kenneth's hand in both of his, with such reverence as he might have shewn to a native prince, saying—'You are the son of Morrison of Dalcairdie. I almost knew it from the time I saw you come up the strath; but I know it now by this token, that Smith was the name I was known by when I lived upon your father's lands, a peaceful man, with wife and bairns about me.'

'You have given the proof we wanted,' said Mr Grant, with some huskiness in his voice, but in his most deliberate manner, 'of Kenneth Morrison's claim to his father's property. Once more he owes you a great debt; but not so great a one, Kenneth,' he continued, 'as you have already owed. That man gave up all that was wealth to him, for your father's sake: he could not save his life; but as he was dragged a bleeding corpse past his door, he saved his body from farther insult, and thus at least gained for it Christian burial.'

Kenneth covered his face with his hands, and groaned aloud.

'Let the past alone, Grant,' said Mr Lindsay: 'we have long known all these things; but they press overhard upon him.'

'Nay,' said Kenneth, looking up: 'I thank you rather for recalling it! Such a scene as you have described, though it makes me feel still more deeply the sacredness of my claim, takes so much of the brightness from the world, that the path before me seems higher and less selfish than it has ever done. If wealth and influence become mine, they shall be used for the welfare of all who have suffered in my father's cause; and first,' he added, grasping Cameron's hand, 'I will endeavour to shew my gratitude to you.'

'Speak not of it, Dalcairdie!' said the old man. 'My time on earth will have been long enough when I see you in your father's house, and think that I helped to save you for that day.'

'We ought now,' said Mr Grant, 'to lose no time in proceeding on our journey, for much lies before us that should be done before to-morrow night.'

'I'll not let you go down the mountain alone,' said Cameron. 'My son shall accompany the young laird'—

'Not so!' interrupted Mr Grant: 'the less observation we attract the better, and Donald knows the road as well as themselves.'

'Go, then,' said Cameron; 'it may be you will not have been wholly unlooked for!'

In a few minutes more the ravine and its inhabitants, who had received with unbounded joy Cameron's news, were left behind, and the long tract of moor and fell stretched again before our travellers. In the course of the evening they reached a lonely farmhouse, where they rested for the night; and there they heard that some fears had been excited by the rise of the mountain-streams, and other appearances, which betokened an approaching flood. It was not, however, considered to be near at hand, and the alarm had only just arisen; so that although the little party determined on pressing forward as quickly as possible the following day, they had no fear of not arriving in safety at their destination. What that might be, Kenneth of course suspected; but as his friends did not explain the route they were taking, he resolved to ask no questions concerning their future movements. There was a thick mist over the face of the whole country when they again set forward; heavy masses of vapour seemed hurrying from the coast towards the inland mountain-ranges; and though, as the morning wore on, the sun now and then gleamed out upon the nearer rocks that bounded their road, or revealed the recesses of some deep birchen glade, it was soon curtained again, and a strange reddish light was spread over the landscape. Through mist and sunshine, passing doubt and exulting anticipation, one sweet face smiled on Kenneth as he drew near his father's home: those earnest, trustful eyes of Marion's seemed to give him assurance that truth would prevail in his cause; the music of her voice blended with all the sounds of nature around him; and he felt as if he was passing over enchanted ground. His friends, when the rugged path they were pursuing permitted them to ride abreast, appeared engrossed by their own conversation; and although it was occasionally rendered more difficult by the rise of the mountain-streams which crossed it, and obliged them to choose higher and more circuitous ways, they went on a considerable distance without meeting any decided check to their farther progress. They had halted at about twelve o'clock, to partake of the provisions with which their servants had been provided by Cameron, when Kenneth's attention was arrested by a low, distant sound, resembling the confused hum of a multitude coming towards them from the other side of the hill. He observed almost at the same instant that Donald stole quietly away; and as the rest of the party remained unconcerned, he speedily followed his example, under the pretext of examining a curious group of stones at some little distance; and after a quarter of an hour's active climbing, he gained a point from which he looked down on the strath into which they were about to descend. Wild and terrible was the scene which lay before him: for onwards, from the north, came the waters which had collected in the Grampian chain, overflowing the rivers fed by those tributary streams, which rise in its hollows, till they now rushed with resistless violence along the valleys; breaking through every embankment, filling up the course of every wintry torrent, and bearing desolation on their way. Below him spread a fertile tract of pasture-ground, which ran up into many defiles formed by the spurs of the mountains, somewhere in whose neighbouring recesses he knew that Dalcairdie lay embosomed. He could see through the rain, which now began to descend in sheets, summer bothies swept away from the hill-side, and cattle struggling with the water. Above every other sound rose at intervals the loud cry of human anguish and fear; for close beneath him,

nestled down under a firwood which skirted the base of the height on which he stood, lay a small hamlet, two or three houses of which were separated from the rest by a stream, which now rushed past it swollen to a mighty torrent. Had Kenneth followed his first impulse, on beholding this unexpected scene, he would have made all speed to gain the valley, and to give what help he might to its bewildered inhabitants; but remembering the unprotected situation in which he had left his friends, he determined to return first to them, and to see what shelter could be found from the storm, which was every moment increasing in violence. On regaining the group of stunted oak-trees under which he had left them, he saw them at some distance close to a cottage they had passed on their way: he rapidly explained the scene to which he had been a witness, and begged they would remain in the cabin, while he himself returned to the hamlet. To this they unwillingly agreed, and in another minute he was on his way back.

By the time Kenneth had reached the valley, the danger on all sides had frightfully increased: the river was every moment widening its banks, and had already borne away several cottages, and threatened the rest. The feelings of all were wound up to the highest pitch; but there was a steadfastness of purpose, and a calmness in the energy with which the people worked in removing their goods, and in assisting the oldest and weakest to escape from the most exposed parts of the valley, which told impressively in their favour. Kenneth's eager help was first given to a poor woman whose little habitation was already undermined; her children were safe on a ledge of rock above it; but just as the roof fell in, he helped her to drag from it a chest containing all the Sabbath clothes of the family; and then he lent his well-nerved arm to an old man, who had been in vain attempting to move it. And when both were placed beyond the reach of the waters, he was just turning towards another group, when a rumbling noise on the opposite side of the channel made all pause at their work: the mist was still so thick that objects at a short distance could only be imperfectly seen, but the old grandfather guessed at once what calamity had taken place.

'There it is at last!' he cried: 'mony and mony's the time I have said that bonny homestead stood on slippery ground! The spring behind it was aye rushing strong when the burn was full, and the crack in the rock was widening; but Elspeth wad tak nae heed to my warning; and to say truth, I had e'en forgot it mysel the day. Archie! Willie!—a' of ye! ye maun just go and help the wee auld bodie; for she'll run a puir chance if she has nae present deliverance.'

'Ay,' answered one of the young men thus addressed; 'but wha is to cross the water? Wi' sic a whirl and a skirling, what boat wad escape being broken to pieces in a minute? Naething human could swim against the tide, and the brig is a guid four miles off.'

'Not cross the water!' screamed Menie, the woman Kenneth had been helping, who now ran distractedly towards them. 'Is it my ain blood I hear saying that? I tell you Miss Gertrude Morrison is in that place ye are looking on, that is just doomed to fa' to destruction! Robin met her this morning on her black pony going to old Elspeth: she wad fain have had her to go up to the big house long ago, and now she is there keeping her lane wi' death before her!'

'Alas, the puir young leddy!' replied Archie sorrowfully, 'that the like of her should perish!'

'She shall not perish!' cried Kenneth impetuously: 'tell me, is Dalcairdie so near?'

'On the other side o' the hill yonder,' said Archie.

In a moment Kenneth had sprung to the point exactly opposite the falling hut, which he could now plainly see; for a sudden gust of wind, which had swollen the river with fresh spoils, had also raised the curtain of mist, and he perceived the full extent of the catastrophe. The dwelling had slipped, with a portion of rock to which its walls still adhered, down to the very edge of the river: behind it foamed a waterfall—in front was a mass of ruins; and to these clung a young woman dressed in black, supporting a crouching figure, so small as to appear almost that of a dwarf. As he stood gazing horror-struck on the sight, for human help seemed vain, he heard a voice close to him, in a whisper of agony—'There—*there*, did you say? my daughter!' He turned, and saw an old man whom he had seen approach on horseback from the northern extremity of the fir wood standing by his side, with such an expression of terror in his face, of unutterable anguish, as he had never before imagined. He knew in a moment that it was Mr Morrison of Dalcairdie. His ready wit had already suggested the only possible means of escape; for within these few moments more than one desperate attempt had already been made to cross the river; and he saw the boat, which with great difficulty had been launched, whirled round like a nutshell, and broken against the huge fragments of stone which had been swallowed up by the waters. Mr Morrison (for he it was) seemed to catch a ray of hope from Kenneth's steady eye and dauntless bearing. 'Save her!' he cried; 'you are young and bold! What!—do you hesitate? Life—ay, more than a thousand lives, depends upon you!'

'There is a chance,' said Kenneth; 'a poor one, it may be, but the only one. If I perish, few will grieve for me.'

'I tell you,' exclaimed the old man, 'we know your errand! It was but this morning we heard of it; and it did not keep her from venturing here to persuade that old woman to leave her miserable hut for a place of safety. If my daughter is drowned before my eyes, what will this world be to me? Save her, and take all we have!'

An instant before, Kenneth's soul had been all on fire to attempt a rescue, though he died in the venture. He now drew back with a glance of scorn; but the evil feeling was instantly suppressed, and without one word to tell the strife that rose within his breast, he called on Archie to help him to effect his object. His eye was fixed on a huge pine-tree which had been uprooted at some distance, and was now borne onwards by the current; its branching head, he trusted, might be caught in the mass of rubbish collected round the fallen cottage, and thus it might form something of a raft over part at least of the river. He was not disappointed; and the moment he saw its progress arrested, he leaped into the tide. For one instant he disappeared under the boiling waters—in another he had clung to the roots of the tree, and raised himself upon it; slowly, half-swimming, half-supporting himself by its stem—now thrown back by the violence of the currents, now again able to give directions to Archie and Donald, he first secured the rope they threw to him, to the

tree, and then succeeded in reaching the opposite shore. Gertrude, meanwhile, had roused her companion from her stupor, and placed her among the branches, which afforded a scarcely less solid footing than the crumbling heap on which she had lately stood; and now, as Kenneth approached her, he heard her entreating that the aged woman should be taken over first. The force of the waters threatened every minute to dislodge the head of the pine from its resting-place; Kenneth obeyed her, therefore, and succeeded in placing poor Elspeth's light weight in the stalwart arms of Donald, who had followed him by means of the rope.

'Let me go on, sir!' said the brave fellow: 'you have done enough; and we'll hand over the pair old body to Archie Bean.'

'I have not done my work!' answered Kenneth. 'Keep the woman's head above water, and do not let her catch hold of you, and you will carry her safely.' He was already on his way back, but it was a more difficult task to afford equal assistance to Gertrude. 'Trust yourself to the rope,' he said, as he again approached her: 'it is your best chance; and do not fear, even if you lose hold of the tree; there are those at hand who would die to save you.'

'I trust myself to Heaven and to you!' answered Gertrude; and she resolutely withdrew her arms from the branch to which she had been clinging; keeping hold of the rope which Kenneth fastened round her waist. It was drawn by strong hands and loving hearts from the shore: but he upheld her; he spoke a word of hope and of faith as life seemed departing; he raised her head; and when a tremendous rush, as of a fresh cataract, poured over them, with one arm he held on to the pine-tree, with the other he grasped her firmly. And when it passed, and the huge trunk floated on, Kenneth, with a last effort, had reached the shore, and Gertrude was restored to her father. He did not see it, for he had fainted.

The morning light was streaming through the half-open curtains in a pleasant room at Dalcairdie when Kenneth again woke to consciousness. How he had come there, whether hours or weeks had passed since the events which he now slowly and dimly remembered, he knew not, nor much cared to comprehend: his first feelings were the pleasant ones of returning health, clouded over by such languor as made it almost too great an effort to consider the probabilities of his situation. The silence around him was broken only by sounds that seemed rather to increase than to disturb the exceeding quiet; such as the singing of birds in the boughs, whose flickering shadows against the wall he had been watching for two or three minutes; the ticking of a watch near his bed; and the turning of the leaves of a book. He drew aside the curtain with unsteady hand, and saw Mr Morrison reading by the fireside in his dressing-gown and slippers: his worn and furrowed face expressed anxiety indeed, but yet more of patient determination; his forehead was high and narrow, his lips thin and closely compressed. But it was not a countenance to look upon with dislike; and there was a mournful softness in it, as he now laid down his volume, and came to Kenneth's bedside. He gently laid back his head upon the pillow, and took his hand to count his pulse.

'Is she safe, sir?' asked the invalid. 'The water was icy cold!'

'You were in it longer than my daughter,' replied Mr Morrison, gazing

into his face, and speaking slowly and distinctly, as if to ascertain whether Kenneth understood him. 'She is well, and longs to express her thanks to you; but we must keep you quiet at present, and not talk of all you have done for us.'

'One word more!' said Kenneth eagerly. 'This house—is it yours?'

'Yes,' replied Mr Morrison; 'you are at Dalcairdie. Where else should the preserver of my only child have been brought?'

Kenneth turned away his head; but no longer for sleep. In a few minutes more Mr Lindsay stood by his side with overflowing eyes, and broken exclamations of thankfulness and joy.

'Come,' said Mr Morrison, 'we shall be bad nurses now; we must call Gertrude to our help.'

'I am here, father,' said a low sweet voice, which had made the music of Kenneth's long dreams; and he took the refreshing draught which she held to his lips with a strange feeling that he had done the same thing often before. 'You are our prisoner, Mr Kenneth,' said Gertrude, 'and if I give you liberty of speech, you must give me your parole not to use it longer than I approve of.'

'You have a right to dictate to me,' replied Kenneth, smiling faintly. 'I have only a few questions to ask—How I came here without any knowledge of mine?—how long I have been in this strange state of forgetfulness?'

'You were stunned by a blow you received in the river,' she answered quietly. 'You have been in great danger; but now it is over; and all you require is perfect quiet for a few days to restore you to health.'

'And then, my dear boy,' continued Mr Lindsay, 'we will talk of business: not before remember—not before.'

A flush passed over Gertrude's pale cheek at the words. Kenneth perceived it, for she was just arranging his pillows with the readiness of an experienced nurse. And he, too, felt the painfulness of the silence which followed; but his head was so confused, that he knew not how to break it.

'Dr Selwyn will soon be here,' said Mr Morrison, looking at his watch: 'he only left us for a couple of hours.' And at the same moment the person named entered the room, and advancing to Kenneth's bedside, soon made himself thoroughly acquainted with the state of the case. He was a striking-looking man, in the prime of life, with a keen, dark eye that seemed at once to see what he had to do, and a manner which inspired perfect confidence in his judgment—two most important points in the professional career he had so successfully pursued. He decided that Gertrude's recommendation of silence and quiet should first be enforced; but he thought so well of the change which had taken place in his patient's condition, that he assured him his confinement to his room would be of very short duration. 'I may safely leave you,' he said, 'under Miss Morrison's care: if I could secure any like it for all my invalids, they would require much less of mine; you may be sure there is nothing I can do now that can compare with it.' And so Gertrude, with the assistance of an elderly servant called Judith, who was as anxious as the rest of the family about the young stranger, continued her attendance upon him; and her manner was so sisterly, and there was such an air of repose about her, that it

seemed to impart quiet to his own nerves to feel her near him. He found that Mr Grant had been suddenly called away the very day after the accident which had so nearly proved fatal to him, by an account of his sister's dangerous illness; and as Gertrude told him this, he asked eagerly whether Miss Grant had written to her before it came on.

'Yes,' answered Gertrude, raising her soft expressive eyes to his; 'she told me of your visit to Dunkeld, and of her suspicions regarding your arrival in this neighbourhood. I wish I could think that her anxiety regarding this very letter had had nothing to do with her present state.'

'Then you expected me?' said Kenneth, raising himself on his pillow.

'Yes, I remember now: you knew that I was coming to claim for myself all you care for most. What a contemptible opinion your father must have formed of me, as I stood by his side on the river-bank, when he offered to give up all for your sake!'

'No, indeed,' said Gertrude soothingly. 'You do us injustice: whatever your claim may be, neither my father nor myself would desire otherwise than that the most impartial examination should be made of it. What is past cannot be recalled; but the future, I trust and believe, lies bright and clear before you. Only let health and strength return before we talk over these things, and all will be well.'

From that moment the subject was never brought forward by any one near him. He slept and woke in his own old home, the place he had learned to look upon with veneration—to possess which was the object of his most ardent hope; and he recognised nothing, he knew nothing of it, beyond the two rooms in which he lived; and the restraint, as he found himself able to move from one to the other, became unbearable. Mr Morrison's manner was cold and courteous, with an occasional gleam of warmer feeling; Gertrude's was ever kind and composed: and as Kenneth drew her into conversation, and learned something more of her past history than Marion Lindsay had told him, he fully appreciated the high and solid principle, the unselfish care for the good of others, and the well-directed exertion, which had won such love and reverence alike from her friends and her dependents. He saw that to her, life was simply a path of trial, though brightened, indeed, by the gladness she diffused around her, and by the hope that lay calm and full within her; and he thought how many in her circumstances, with little to amuse her fancy and to excite her intellect, and with evidently failing health, would have sunk into indolence and apathy. Was he come, then, to darken that path?—to drive her father and herself forth from their home?—to break up all the work she was so wisely doing? He recoiled in bitterness of spirit from the picture, and felt as if the confidence which all Gertrude's conduct towards him expressed, added to his self-accusations. Yet how tell her anything of this, while, so far as her father was concerned, any right he had to the estate depended solely on a promise made in the agony of despair, and which he earnestly wished might be for ever forgotten?

Dr Selwyn meanwhile brought occasional tidings of the world without. The floods had done terrible mischief through the neighbouring straths; but they had now abated, and no lives had been lost; even poor old Elspeth had recovered her terror and her dangers, and only regretted that her cottage could not be rebuilt on its former site. A week had elapsed

THE LOST LAIRD.

since Kenneth had become an inmate of Dalcairdie; and from the morning on which he regained his consciousness, his host appeared indefatigable in making arrangements for the comfort and renewed prosperity of his dependents. What conversation passed in his room bore entirely on this subject; but he was constantly interested by the manner in which Dr Selwyn brought forward Gertrude's views—often expanding them, now and then slightly differing from her opinion, yet always proving very clearly that he remembered all she had ever thought, and knew exactly what she was most likely to wish for. There was a brightness and buoyancy in his spirits, that seemed to bring an atmosphere of health where he came: no wonder that she felt its influence, and smiled almost gaily under it; but her cheerfulness, young as she still was, no more resembled that which Marion Lindsay shed over her home, than the soft, mild light of an autumn day does that, which dances over the earth in May.

'Dr Selwyn,' said Gertrude one evening, as she sat working, 'was with us through our greatest trials: he attended my brother through his last illness, and did much to comfort my father; he is so firm and determined where firmness is required, that one can always lean upon his opinion; and so kind'——'that one must love him' seemed to hover upon her lips; but she bent her head over her work, and while a feeling of great relief passed over Kenneth's mind, they both remained silent. She might have told more of her reasons for feeling happy in Dr Selwyn's society, had she been as unreserved as Marion; but she left him to learn by slow degrees how great a share his high religious principles, united with his acknowledged talents, had had in raising her father's hope and aim in life from the objects of mere worldly ambition to those a Christian may rejoice to live for, even through sorrow or poverty.

On the fourth day of his convalescence, Kenneth could endure this quiet state of things no longer.

'I must breathe the fresh air again,' he said to Mr Lindsay; 'the weight of this silence oppresses me like the stillness of death itself!'

'I should have thought,' said Mr Morrison in answer, 'that the view from these windows might in itself have been interesting enough for your present amusement.'

'No,' replied Kenneth with feverish impatience; 'there is no charm of old acquaintanceship in it.'

'I will not affect to misunderstand you,' he replied in his low distinct tones; 'you wish to see more of Dalcairdie: there is no reasonable objection now, I think, to your being gratified. Gertrude shall drive you in her pony carriage, and Mr Lindsay and I will accompany you.'

'Such an afternoon as this,' said Gertrude, 'might well tempt us all out, with no other inducement than its own beauty.'

'There is no need for hurry, my love,' said her father, glancing anxiously towards her as she left the room to prepare for her drive; but in a very few minutes she was ready, and Kenneth, leaning on Mr Morrison's arm, slowly descended the great staircase. All was different from the faint recollections he had cherished. He crossed a large hall with a few fine pieces of statuary ranged on the marble floor, and some flowering shrubs in the tall windows; the flood of mellow sunshine streamed upon them through the columns of a stately portico; and before him lay a beautiful

parklike scene. Was this indeed Dalcairdie? Mr Morrison observed his bewildered look with a smile, but offered no comment upon it, as they joined Gertrude, who was already seated in her low garden-chair. There was no hurry in her manner; her face was paler and graver than usual, but her large lustrous eyes were lighted up as from the very depths of her soul; and when she spoke, there was a tone of excitement in her low, musical voice, which again she seemed to master by the mere force of her will. The sleek white pony stepped soberly along through a beautiful plantation, which skirted the base of the hill at the foot of which the mansion stood. Beyond it were groups of stately trees, beneath which the cattle lay grouped in the lazy enjoyment of the golden afternoon.

'My father,' said Gertrude, 'has employed many years in making alterations in this place: the old Hall has assumed a Grecian exterior; indeed, so much has been added along the front of the building, that none could recognise it.'

'You have made an English park,' said Kenneth, 'of a Highland tract of moor and wood.'

'Do you, then, remember so well what it used to be?' asked Mr Morrison.

'No,' replied Kenneth with some emotion; 'I remember nothing here.'

'I must take you out of the drive,' said Gertrude, 'to shew you my favourite spot. Do you feel equal to walking with me some way along that path we just see, opening now to the left? I perceive Dr Selwyn coming towards us; he will give you his arm if you find a scrambling walk too much for you.'

'Indeed,' answered Kenneth gaily, 'you do injustice to your own care: there is nothing I should enjoy half so much as a ramble along the hill-side with you.'

Here Mr Lindsay called to him to point out the peculiar beauty of some English cows; and as Kenneth handed Gertrude from the carriage, and then joined Mr Morrison and himself, they walked back a little way to see them to greater advantage, and Gertrude went on quickly to meet Dr Selwyn. Their conversation did not reach Kenneth's ear; but when he shook hands with the latter, he observed that it had warmly interested his companion; and now, as she led the way along the steep winding path, his step grew firmer, and the youthful elasticity of his frame returned with every breath he drew. They soon again descended the spur of the hill on the other side, and came to a nook, altogether unlike any portion he had yet seen of Dalcairdie. It was a small dingle traversed by a mountain-stream, which formed a deep clear pool at the foot of a group of old beech-trees. There was a ledge of gray rock opposite, overhung by a rowan thicket, and garlanded with wild flowers, which, with every autumn tint upon the foliage, were reflected in the water; but its chief charm lay in its air of perfect wildness and seclusion.

'We have outstripped Mr Lindsay and my father,' said Gertrude, 'but I was impatient to bring you to my own favourite haunt: is it not a fit place to sit down and dream in?'

'So fit a place,' answered Kenneth slowly, 'that a dream seems to hover round me already—a strangely vivid one.' He paused; and the glow that exercise had brought over his cheek faded to a-hue of ashy whiteness.

THE LOST LAIRD.

His eye was fixed on the opposite bank, but his lips were firmly closed, and Gertrude's countenance expressed the deepest anxiety. She sat down by his side on a fragment of rock, and laid her hand gently on his, and the very touch had a calming influence.

'Speak to me!' she said. 'Think of us as your friends; of me as of one who owes life to you, and whom you have saved wellnigh by the sacrifice of your own: tell me what this vision is which affects you so strongly?'

Mr Lindsay and Mr Morrison stood near them with Dr Selwyn; but Kenneth was utterly unconscious of their presence as he rose, and pointing to the gray rock jutting out of the copsewood, answered—'They stood there—two men—for a moment, and a rout of soldiers followed them: yonder was the way they went; and then all was still, and I was left alone with Janet by the bonnie burnie dub.'

'He has told it!' shrieked a voice from the thicket as wild and shrill as the cry of a sea-bird.

Kenneth started in amazement; for in another moment there, where his memory had conjured up the apparition of the fugitives, stood a group of three persons—Mr Grant, Cameron, and Janet Maxwell; the last throwing her shrivelled arms over her head in a fit of uncontrollable excitement. They had just stepped out of the tangled copse, where, in the deep silence that reigned around, they had been near enough to hear every word that had been spoken. Mr Lindsay grasped Kenneth's hand, and shook it violently. Mr Morrison's manner, as he laid his hand upon Gertrude's arm, had the quiet and decision of a resolution that had long been taken. 'Kenneth Morrison,' he said, 'you have been brought into a well-laid snare; but, before the witnesses whom we have here assembled, I pronounce that the test my daughter proposed has fully succeeded, and that your claim is good, and your right to all your father held unimpeachable. And now, my friends, let us welcome home the long-lost laird!' As he spoke, he took Kenneth's hand in both of his, and his example was rapidly followed by Mr Grant and Ewen Cameron; but none shook it more cordially than Dr Selwyn, whose joy on the occasion seemed utterly incompatible with the interest he usually evinced in all that concerned Gertrude.

'I tauld you how it was ordered,' whispered Janet, as she crept close up to Kenneth's ear. 'The bonnie Snowdrop of Kincaldrum shall bloom at Dalcairdie yet!'

Kenneth could have hugged the old woman on the spot; but turning from her with a few hearty words of greeting, he said to Mr Morrison—'I had no distinct recollection of this place, nor had I ever linked the story of Prince Charles with its peculiar features: you know that I remembered nothing in your house—how is it that all are so suddenly satisfied with my imperfect evidence?'

'Not imperfect,' said Mr Morrison. 'Gertrude and Dr Selwyn arranged a plan whereby every difficulty was to be removed; and I must say that, although it was somewhat too theatrical for my taste, I think it could not have been better, judging from the results.'

'We are all satisfied,' said Mr Grant. 'I consider the chain of evidence perfect in every part.'

'Evidence!' cried Janet, breaking in upon the lawyer's argument: 'is

that the name ye ca' what gives Kenneth Morrison a right till his ain? Ye have a' known what I tauld ye. Mr Lindsay, and the doctor, and a', ken weel that he ca'd it the bonnie burnie dub when he was a wee bit bairn by my side; and so he has named it now in the broad sunshine, as I prayed and believed he wad.'

'Gently, my good woman,' resumed Mr Grant; 'that is precisely what I was going to say. Your account, coupled with your kinsman Cameron's and with Lady Lucan's, left little ground for legal objection; but to remove any feeling on Kenneth's part that a promise made in a father's bitterest sorrow formed the motive of Mr Morrison's very handsome conduct, Miss Morrison herself sent for old Janet, and devised from her story such a test as all parties might consider final.'

'Let me, then, now congratulate the Laird of Dalcairdie on his restoration to his family honours, and wish him, with all my heart, long life and happiness!'

As Gertrude spoke, Kenneth raised the soft white hand she gave him to his lips; but Mr Lindsay cried out, 'Her cheek, man!—her cheek! You forget you are cousins!' And acting on the words, he kissed her as he would have done a beloved elder sister.

'All that I have hitherto lived for,' he said, 'is now attained. Your father and yourself have done far more for this place and its people than any one else could have done through the years of my boyhood. If Janet had never framed her plan of concealment, no better arrangements could have been made for my welfare than have been carried into effect; and now, if you will once more receive me for a few days as your guest, you shall see that I am not ungrateful.'

And the whole party returned to the Hall, of which Kenneth was now undisputed master, with feelings more easily imagined than described. His were sobered in their first passionate rush by the earnestness of his purpose to secure Gertrude and her father from whatever pain it might be in his power to spare them: he had wonderfully recovered his strength during the last half hour, and now he seemed to drink in health and elasticity of spirit with every breath of his native air. As the long lines of the house came again in sight, Mr Morrison pointed out to him the older portion of the building, which rose in a heavy but not unpicturesque mass behind them: the richest ivy mantled round the high chimneys and over the turrets, which were once the pride of the country-side; and the group of stately cedars which he remembered, threw their dark shadows along the Grecian colonnade: it was a strange harmony of the past and the present.

'Little, indeed,' said Kenneth, 'of all this wealth and beauty belonged to my father: nor can I consider myself for a moment entitled to any part of what is most justly yours.'

'No,' replied Mr Morrison, with a smile of peculiar meaning playing over his thin expressive features; 'I do not intend to burthen your young and generous spirit with a sense of obligations you cannot repay—we will leave our good friends, Grant and Kincaldrum, to settle what is yours and what is mine; but as we become better acquainted, you shall learn the reasons which induced me to lay out large sums of money on this estate, and to build so extensively that, in fact, the house in which you were born is now scarcely inhabited: we are, indeed, become few to live here.'

That evening, which all principally interested in the events of the day seemed equally anxious should draw to a close, was ended by prayers read by Mr Morrison, according to the form of the *Episcopalian Church*, in the oratory or small chapel attached to the house. It was a short but most solemn service; and though many eager, and not a few reproachful glances were directed towards Kenneth, when first he entered and took his place with the rest of the family, there were none that did not sink reverently before Mr Morrison's clear eye and noble manner, when, prayers being over, he in few and simple words introduced him to his household as the Laird of Dalcairdie.

'Not willingly have I done this wrong,' he said, 'in keeping back the inheritance of the orphan; and yet, God knows! most joyfully do I now restore it fourfold. A kind and open-handed master I am sure I shall leave in my place; but those who wish it may follow my daughter and myself to the Grange, where we intend soon to take up our abode.'

There was a fervent 'Amen,' as Mr Morrison ended, from Janet, who sat in one corner, half-hidden by a pillar from sight, with her glittering eyes fixed upon Kenneth, and her whole soul apparently absorbed in the feeling of his presence. Thereupon ensued a startled look among the servants, and a half-suppressed movement towards the door, as if some supernatural sight had been expected; but nothing more awful followed than that Ewen Cameron, who had been standing by Janet, stepped respectfully forwards, and addressing Mr Morrison, he said—'If I might speak in sic a solemn place, I also would fain say one word, and ask pardon from you, sir, whom I have hated many is the year with a sore hatred; and for an unchristian act, I fear me now, that I have done'—

'Speak boldly, my friend,' replied Mr Morrison; 'a faithful servant such as you have been shall never want honour from me. So far as I know, we have not met before this day, unless, indeed, it has been in the dark, and under circumstances which a brave man should never have placed himself in. I would rather,' continued he with a tone of authority, 'that our conversation should be in private.'

'As you please, sir,' answered Ewen carelessly; 'but I would have you remember that I was the laird's foster-brother, and not his servant, and that the honour of a gentleman may sometimes consist with skulking in times like those that are past.'

'We will not prolong the subject,' replied Mr Morrison, still standing near the lectern at which he had read. 'This is not an hour or a place suited to it; but to-morrow, in the laird's study, we will enter into it as fully as you please, and in the meantime most cordially do I give any pardon you may think it needful to ask.' So saying, Mr Morrison slightly inclined his head to the assembled household; and with many blank looks of disappointment they slowly withdrew without another word being spoken, excepting a low mutter from Janet, to the effect that a Southron could no more change his nature than a leopard his spots.

As they left the oratory, Gertrude said to Kenneth, with a degree of bashfulness that added to the softness of her manner, in itself always so composed and dignified—'I cannot yet give up my charge of you, and must positively enjoin more rest upon you to-morrow than I imagine you will be inclined to allow yourself. I shall be ready, however, to walk with you if

you wish it early, and to shew you all that we have done during the years we have lived here. We may find that your memory serves you even better than you are now aware of.'

'I am your guest, if no longer your prisoner,' replied Kenneth gaily; 'and could not wish for greater pleasure than to obey your commands.'

'Always adhere to those words, my dear fellow,' said Mr Grant to him as they directly afterwards parted for the night at Kenneth's door. 'Gertrude Morrison lays her command upon us all to love her, and serve her well, even without saying a word; and who should have better opportunities of knowing her worth than yourself? Come, come! a pleasanter arrangement may be made yet than her betaking herself for the rest of her life to the Grange, which is but a dull old place compared to this; though her father, with his great English fortune, and his taste for Grecian architecture, may make it habitable for himself.'

'She would do any man honour by becoming his wife,' replied Kenneth gravely. 'Have you not observed that Dr Selwyn thinks so too?'

'Whew! sits the wind in that quarter?' answered the old lawyer, shrugging his shoulders. 'There is no accounting for a woman's taste, though she be the wisest of her sex; but there may be a remedy.'

'Pray, do not undertake to find one on my account,' said Kenneth, unable to suppress his amusement at the sudden destruction of Mr Grant's airy castle, and his evident annoyance thereat. 'My own plan, so far as I have formed any, is to return almost immediately to France, for an indefinite time, so as to allow Mr Morrison and his daughter to arrange theirs without the slightest interruption from my presence.'

'And leave Kincaldrum and myself to look after your interests? Well, you will not be so far wrong in that respect, for you are over-young to care much for them yourself.'

That night Kenneth wandered in dreams with Marion Lindsay through the woods and by the burn at Dalcairdie; and when he woke, and the bright sunshine brought him back to the realities of life, they seemed scarcely less delightful than his sleeping fancies. He found the family at breakfast when he left his apartment; and as soon as the meal was over he reminded Gertrude of her promise. They went out together, and she led the way round the cedars, through a wicket, which admitted them into a garden, laid out in the formal French taste, under the gray walls of the old hall; and in a moment they had passed into so different a scene from the one which by this time had become most familiar to Kenneth, that it seemed scarcely possible so slight a boundary should have divided them from it. There was, however, no air of desolation round them; the place simply looked as if a spell had fallen upon it, in all its summer beauty, twenty years before; and no mortal had trodden there since. The pears were ripening round a low bay-window, which opened nearly to the ground, amongst large clusters of red roses, and a profusion of trailing flowers fell from the stone vases with which the terrace was adorned; the parterre beneath was as gay as if fairy fingers had tended it; the sound of 'the golden bees' was heard; and now and then the notes of birds from the thick branches of the trees which spread over the low outer-wall. Even the little Triton, who was blowing his conch-shell in the fountain in the centre of the garden, threw a bright shower of water into the stilly air.

'My mother's garden!' said Kenneth almost in a whisper. 'How beautiful it is!'

'Yes,' said Gertrude, 'we have cherished it for her sake. My sisters and myself tried to keep every plant, and even to sow again every flower we found here. It had all the charm of mystery to us, for we scarcely allowed any one to come here but ourselves; and as we grew older there was a strange superstition attached to the place, which, while it determined my father to close the old rooms by degrees, because he feared its effect on our spirits, only made us the fonder of this garden, where no ghost was supposed to lurk, or at least not in the daytime.'

'What appearance,' asked Kenneth eagerly, 'was ever seen here?'

'One,' replied Gertrude, 'which I imagine will not be very long unexplained: it was that of a tall Highlander in the prohibited plaid, and full accoutrements of the northern clans. There had been rumours more than once among the servants of mysterious footsteps, and of a shadowy form, which glided through rooms which were safely locked, and passages of which every outlet was known; but we attended little to them till about the time of the death of my eldest brother, when my father, sitting alone late in the evening in that bay-windowed room, which is still called the Laird's Study, was startled by the appearance of an armed Highlander, who suddenly stepped before him, with finger pointing in the direction of the room in which our poor Edward lay, and in a whisper bid him seek for the rightful heir of Dalcairdie. My father was the last man in the world to believe in the supernatural character of his visitor; but although he instantly rose, the figure managed to elude his grasp, and, strange to say, disappeared, as if it had sunk through the earth. From that time we have seldom been disturbed, but the servants have more than once assured us the place was haunted; and certainly unaccountable noises have been heard, which, echoing through the long-deserted rooms, have not been without their effect upon our nerves.'

'You remember Ewen Cameron's confession last night?' said Kenneth. 'My own conviction is, that during the years in which he was obliged to seek safety in concealment, he found his knowledge of the intricacies of this old dwelling his best chance of insuring it: you may depend upon it, he was the mysterious personage who drove you from these apartments.'

'I can scarcely say he did that,' said Gertrude smiling sadly. 'My father found constant employment and amusement in building; for a long time he trusted that it was for his son; and then when that hope failed, he still liked the work he had done himself better than that of his predecessors. But my delight has always been here.' She checked herself, as if she feared to say too much of her love for the place she was so soon about to leave: and at the same moment the casement of the bay-window was thrown up, and Mr Morrison and Cameron appeared at it. The story of the nocturnal visitant had been told exactly as Kenneth had predicted it would be, but Gertrude and himself heard now with deeper interest than ever the tale of the escape of those fugitives whom Alexander Morrison had died to save.

'Here,' said Ewen Cameron, addressing them as they stood in the small panelled room, lined with bookshelves, to which he had retired to write his last letter—'here is the passage by which, I make no doubt, the laird led them forth to the fir-wood; and by which I found my way easily into

the house whenever I had a mind to get a quiet night's lodging.' As he spoke, he touched a spring, which instantly opened a trap-door, so artfully contrived in the massive mouldings of the wall that no human being could have discovered it. 'There are many such hiding-places as this,' he continued, 'in the old houses in Scotland; I could tell you many a prank that has been played among them you would scarcely believe; but sorry I am that ever I should have caused alarm to those who have behaved so handsomely as you, sir, and as you, gentle lady, have done now: for all that my heart is big with joy that our lost laird is come back to his own.'

'And most cordially do we rejoice with you,' said Mr Morrison firmly. 'Now, Kenneth, let us ride down to the glen, and see what can be done to repair more completely the devastation caused by the flood: Dr Selwyn is to meet us there. Gertrude, will you be of the party?'

It was towards the end of October, when a promise of prosperity was again smiling through the valley, that Gertrude and Marion Lindsay, who, with her parents, had arrived on the preceding evening at Balcairdie, were passing together through a small churchyard not very far from the house. It lay around a gray tower, whose spire shewed that it had once formed part of a church, the ruins of which might still be seen shrouded with ivy. The friends paused by a tomb half raised above the heather, which bore the names of Alexander Morrison and of Margaret his wife. 'How often I have felt,' said Gertrude, 'as if, from this lonely grave, sad voices reproached us for possessing wealth not justly ours! It was only an overstrung fancy working upon a sorely-tried heart, I know; yet the eyes of that poor murdered mother have seemed fixed upon me while I sat night after night by the side of my dying brothers, as though they asked me what had become of her child! You may now imagine something of the relief it was to me when all was made clear!'

'Surely, dear Gertrude,' replied Marion, 'no blame ever rested upon you or yours; and your father has acted so nobly'——

'Say justly rather,' answered Gertrude: 'Kenneth alone has had a right to be generous.'

His praises brought a bright blush to Marion's cheek, as she said—'I am so glad you are to be married from your old home! But tell me how it was, that having known Dr Selwyn so long, you never thought of this before?'

'It may have been thought of,' said Gertrude, in her turn blushing; 'but perhaps he never would have spoken if he had not seen me poorer than I was, and believed we wanted a home. But we shall not live far off, Marion. When the church-bells ring out their welcome to the lost laird and his bride, we shall hear them by our Christmas fireside. My father feels already that sons are given to him again in Charles Selwyn and in Kenneth Morrison.'

'And I, who never knew a sister, have found one in you, dear Gertrude! Oh, how often good may come out of seeming evil, if only we have trust in one another!'

GERMAN POETS AND POETRY.

AN attempt to compress within the limits of this Paper anything like a history of the poetical literature of Germany, would only make our pages a catalogue of names and dates; yet we may give, in connection with a few specimens of German poetry, such outlines of its history and characteristics as may afford some guidance to those who wish to read more than our brief review.

If disposed to be critical, we might begin with the question so often asked—‘What is poetry?’ but we shall take the word in its widest and most popular sense. As the people understand this word ‘poetry,’ in Germany as in England, it comprehends all writings in verse which display imagination or invention, it embraces, therefore, such widely-different productions as the homely tales of Hans Sachs and the noble ballads of Schiller; the marvellous dramas of Shakspeare and the rude ‘Corn-Law Rhymes’ of Ebenezer Elliott; and we are not aware that any critic has authority to alter this wide definition. According to the general decision of readers, Homer and Horace, Hans Sachs and Goethe, Shakspeare and Pope, Burns and Wordsworth, must all be received as ‘poets;’ yet how widely and clearly distinct are the minds thus named together! Two poets, both allowed to be great, may have little resemblance to each other, excepting in the fact, that both have written inventively in verse. How wide, for instance, is the interval between Shakspeare, the creator of a dramatic world crowded with strongly-marked characters, and Wordsworth, whose verses give us scarcely the outlines of any character, excepting his own! In this respect, the latter resembles Byron—from whom he is clearly distinguished on all other points—another instance of the manifold varieties of genius comprehended under the name of ‘poet.’

These prefatory remarks are by no means intended to depreciate criticism (though criticism in England ranks very low in our estimation), nor to suggest an inference that all judgment on the comparative value of various classes of poetry must be left to individual taste: this is far from our meaning. On the other side, we believe that true criticism or analysis may estimate the value of poetry as truly as we can judge of distances by our recognised standards of measurement. For granting—in accordance with the public decision—that Homer, Horace, Sachs, Goethe, Shakspeare, Pope, Burns, and Wordsworth, must all be classed together as ‘poets,’ the questions still remain to be determined by criticism: ‘How must we recog-

nise the *great* poet?'—'How much did he invent?'—and 'What qualities are there of moral truth, spiritual greatness, or human interest, or fine sentiment, or rich humour, or pathos, to impart additional or peculiar value to his poetry?' In short, we would reject as arbitrary all that style of criticism which once attempted to prove that Alexander Pope was 'no poet;' while we would honour that analysis which shews the distance between such a drama as 'Hamlet' and a poem like the 'Rape of the Lock.'

The application of the above remarks to German literature will be very plain when we state, that the comparative estimates of German poets, even by their own countrymen, are by no means clear and certain. It cannot be said that the reputations of even the most celebrated poetical writers of Germany are as unmistakably established as the characters of our Shakespeare and Milton, or even our Pope and Goldsmith. To prove this, we might quote long passages of enthusiastic praises bestowed upon Goethe, and then contrast them with the low estimates of the same poet given by such writers as Görres and Novalis; or we might quote A. W. Schlegel when he denies 'the truth or reality of Schiller's dramatic characters;' or other writers who have ventured to affirm that 'Schiller was no born poet, but only a man of talent, who, by great industry, acquired a certain facility in the use of poetical phraseology;' or another hardy writer (named Riemer, if we remember well), who says that 'Schiller *stole* all that was good in his poems from Goethe' (!) If opinions can thus differ respecting men of the highest note, then we shall not be surprised to find contradictory assertions with regard to the merits of inferior men—for instance, when we find Wieland, a man widely celebrated in his day, now declared to have been 'no poet at all.' We have briefly noticed these varieties of opinion to shew the necessity of a wide definition of poetry, and also of toleration in our judgments. When 'doctors disagree,' smaller men should not pronounce their censures as oracles. We must beg the critical reader of this Paper to extend toleration to our opinions if they should happen to be opposed to his own. If, for instance, he finds that we speak in very moderate terms of some writer—say Wieland—whose name has filled a considerable space in German poetical literature, we must respectfully beg that he—the critical reader—will not attribute our comparative neglect of such a writer to ignorance. These remarks will not be thought unnecessary by those who know the vagueness of many English criticisms on German writers, especially if they consider that we must, in this brief review, make several statements for which we cannot assign all our reasons.

Without more preface, we proceed to estimate, as fairly as we can, the value and significance of German poetry: perhaps our best way will be to give some outlines of the history of poetical literature in Germany, and then to attempt something like a classification of its productions.

Of the oldest period, or the times preceding the outburst of chivalrous and romantic poetry in the thirteenth century, we shall say little; for although German antiquaries have indulged in many interesting speculations regarding the poetry of that period, its remains, which have been preserved down to our own times, are few. Yet from these it has been conjectured, and with great probability, that ballads, or fragments of the oral poetry of very early times, must have been preserved by tradition, until

they were collected and reproduced in the form of the 'Nibelungen-Lied,' by some unknown writer of the twelfth or thirteenth century. Of this singular and interesting old epic we need say no more here; for anything like a fair account of it—such as may be found elsewhere*—would occupy too much of our space. But another, and one of the most precious remains of this early time, must at least be briefly mentioned here: it is the 'Life of Christ,' or a versification of the Gospel narrative, and was written by Otfried, a monk, in A.D. 863. This was the first German work composed in rhymes, as the more ancient ballads to which we have alluded were marked by alliteration without rhyme. It is very interesting to trace in this venerable relic the roots of the Teutonic words which we, as well as our German neighbours, are now employing every hour—

'In days of yore how fortunately fared
The minstrel, wandering on from court to court,
Baronial hall or royal.'

These lines are strictly applicable to the poet's profession in Germany in the thirteenth and fourteenth centuries—the times of the 'Minnesingers.' So far remote are those times from our modern thoughts and ways—especially in hard-working England—that it is difficult to make their facts appear otherwise than as dreams. The very life of those old times, 'wandering on from court to court,' devoted to minstrelsy, chivalry, and the praise of fair ladies, was exactly what we in these modern days call 'romance;' while *our* actual life, our journeys through hills instead of over them, and at the rate of some forty miles per hour, our gas-lighted cities, our commonplace crossings of the Atlantic, our Manchester mills, and, perhaps more than all, our telegraph wires, which carry thoughts with something like the speed of thought—would have presented to a minstrel or romancist of the thirteenth century glorious materials with which he would surely have constructed a tale far more wonderful, and, for his contemporaries, a thousand times more improbable than 'Prince Arthur.' This consideration may perhaps enable the reader now to look upon the life of one of the old minstrels as a reality.

The name of Walter von der Vogelweide may mark the characteristics of this age; for Walter was, like many others, a knight and a minstrel—one whose life was a romance, and whose verses remain to give us some glimpses of the times in which he lived. Sometimes we find him hailing the reappearance of spring after a long winter, and almost imitating the carollings of birds in his praise of nature; at another time he celebrates, in elastic and melodious verses, the beauty and grace of the lady to whom he devotes his songs, but whom he never names; then suddenly, on turning over a page, we are surprised to find the gentle Minnesinger suddenly changed into a stern satirist, denouncing the political and religious corruptions of his times, even venturing to rebuke the 'Pope of Rome,' and predicting, as many other earnest reformers have done, a speedy ruin of the world. These didactic and satirical verses shew that Walter lived beyond the most flourishing times of chivalry and minstrelsy,

* An analysis of the 'Nibelungen-Lied,' with translated specimens of its style, will be found in the volume on 'German Literature' in 'Chambers's Instructive and Entertaining Library.'

and saw the coming of that cloud which passed over both politics and poetry in Germany in the fourteenth and fifteenth centuries. To speak of the lays of the Minnesingers generally—we might select from them a few which would please even now; but, to tell the whole truth, a fair translation of the greater part would not please modern readers; for both the love-songs and the lyrics in praise of nature would be considered tame. The true characteristics of these old poems are youthfulness of feeling, melodious language, and an almost feminine gentleness. There is hardly anything like passion even in the love songs—indeed *minne*, the word by which they were named, does not strictly mean ‘love,’ though we can find no other English word for it. In one respect, however, we must commend these lyrics: they served the true purpose of poetry; they were united with the real lives of the Minnesingers; they were written not to be read in solitude, but to be delivered with the living voice; to be sung to the lute, or some other stringed instrument of the guitar kind, in the presence of song-loving men and ladies,

——— ‘whose bright eyes
Bathed influence and adjudged the prize.’

This was a natural use of poetry, and it is necessary now to refer back to such primitive practice that we may learn what poetry ought to be. Nothing but long conventional usage could lead us to tolerate such an artificial thing as a long poem, filling a closely-printed volume and intended to be read and enjoyed in solitude and silence. The most genuine and natural use of poetry in our modern days is when some friend recites to another some flowing song or lyrical ballad, or when a company unite to listen to readings or recitations from our best poets. If poetry is not to be musical, if the ear as well as the mind is not to be gratified, why do we not turn it into prose at once? We must go back to the origin, the natural history of poetry, to find the best criticism upon it. Through forgetfulness of this, many long, prosy, so-called poems have been written during the last half century, which will certainly be forgotten before A.D. 1900. One word more on this interesting point: it may be said that we have still many songs set to music and sung; but we think it might be proved, if we had space here, that the modern style of music is not adapted to bring out and interpret the spirit and meaning of the highest poetry. We believe that fine recitation, or, in other words, the melodious, impassioned, and expressive speaking of poetry, is the highest and purest music to which we can listen!

Into this digression we have been led by the Minnesingers. We must now leave them, and turn from the lays of chivalry to popular versification—from poetry to doggerel. Of course this change did not take place in reality so suddenly as we here represent it on paper; but, in sober truth, the fourteenth and fifteenth centuries were as prolific in doggerel or low versification as the thirteenth century had been in poetry. This change in literature was indicative of important changes in society, to which we must now allude. ‘The code of ethics which characterised the institution of chivalry was too conventional, too much the creature of imagination, to bear the tests of time and the rude assaults of ridicule. We may trace, even to its palmiest days, that tendency to present itself in extravagant contrast to the

dictates of sober sense which ultimately made it the butt of popular ridicule. The splendour of the institution under Frederick was so attractive, that a crowd of imitators sprung up, deficient in the inward calling, the true enthusiasm necessary to sustain the knighterrant at his proper degree of dignity. Hence we find the original profession of high devotion to honourable ladies lapsing into licence, and the vocation of the chivalrous minstrel degenerating in the hands of mechanical composers of monotonous stanzas. Indeed minstrelsy became a trade, and, like other trades, was injured by overabundant success.

'The decline of morals aroused some minds to express their censures freely on clergy and laity in satirical and didactic poems; and among these the best of minstrel-reformers was Walter, whose verses are full of sound proverbs on the affairs of public and private life. The didactic tendency which he gave to the lays of the Mimesingers appeared afterwards in the "Walsche Gäst," a system of lay morals. By degrees it descended to the lower classes. Poetry turned away from courtly to popular audiences; and the conventional morality of the Mimesingers was changed for a popular didactic and satiric style, often coarse enough. Hans Rosenplut, in 1460, was one of the most popular poets of this class; and was followed by Michael Beheim, whose style was very rude. As the knightly school of poetry had left out of its consideration, as unworthy of celebration, the lives and doings of *the people*, these could not be expected to remain satisfied with a strain of poetry which never appealed to their feelings. They revenged themselves for this neglect by producing a poetry of their own, in the shape of satirical fables, on the hypocrisies and hummeries of courtly life. In the fourteenth century this style of poetry, if we may so cheaply employ the name, prevailed over the decaying school of chivalry. Thus a false and conventional refinement lapsed into the tone of vulgar satire. So every covering thrown over the surface of society, unaccompanied by a true general improvement of the minds and dispositions of the people, is sure to be torn away by some rude outbreak of the real popular character.'

Of German poetry, or rather versification, in the fourteenth and fifteenth centuries, we can hardly speak, except in a style which to English readers may look like caricature. Surely the Muses never had so great a number of unworthy worshippers as during these times in Germany! Never, elsewhere, were such a number of hopeless subjects simultaneously afflicted with the *cacoëthes scribendi*. Versification was now, indeed, the favourite popular amusement. The ropemakers, the smiths, barbers, bakers, potters, weavers, butchers, coopers, wheelwrights, and tailors, all had their songs celebrating their several occupations. There is something very good, though sometimes comical, in the spirit of these homely productions. We should well like to see such a fashion revived, but in a better style, so that life and its interests might be once more linked with song. By the by, we have heard some very prosaic persons condemn all notions of spreading such influences as poetry and music among the people, calling them 'dreamy,' 'Utopian,' and 'fantastic;' yet we find that such 'dreamy notions' were facts, realities, and so long ago as in the fifteenth century. 'Tis true we cannot say much for the quality of the poetry then current; but it was a poetry for the people; it had a living interest; it was a moving power in

society; and we must leave the reader to consider if such a poetry has not more import than a great part of the printed verse of modern times, which fills the pages of neat foolscap octavo volumes, and, escaping the notice of the public, falls into the hands of some 'stale, flat, and unprofitable' critic, to be manufactured into a stinging article. We must say something more of the curious productions of the fifteenth century; but, as we have already noticed, our statements here are so much in danger of seeming like exaggerations, that we shall prudently take shelter under a quotation from a German literary historian and critic, Gervinus, whose authority on this point will not be disputed:—"If we would understand the coarse and low style in which poetry was written in these times, we must remember with what a strange medley of topics versification was connected in the fifteenth and also in the sixteenth century. There was, in fact, hardly any class or calling in society which did not meddle with poetry; [so-called] and the lowest and most vulgar topics were now thought worthy of illustration in verse. The doctors gave their *regimina sanitatis* and their rules of diet, &c. in Latin and German verses; astrology and physiognomy were explained in rhymes; artists described their paintings and carvings in rhyme; topography and histories of towns were given in verse; the pious man had his book of prayers and confessions done into rhyme, and the hypochondriac carried about with him his little book of rules of eating and drinking, with prescriptions of physic, all neatly done up in verse. The peasant had his rules for foretelling the weather put into verse to assist his memory, and verses for the same purpose were written on all the sciences. One Jacob Mennel gave an analysis of the game of chess in rhyme; Hans Folz wrote a poem on "Crockery," describing carefully the important uses of jugs, mugs, basins, plates, spoons, and pewter-dishes; the same writer also gave essays in rhyme on the use of "Warm Baths," and the "Rise of the Roman Empire;" one Jacob Kobel wrote a poem (?) on "Good Behaviour at Meals;" Martin Agricola gave in rhyme a treatise on "Instrumental Music;" the military art was put into rhyme; fencing-masters explained in verses the use of the sword; falconers made stanzas on the proper mode of cramming and training young birds; farriers prescribed in common metre; confectioners extolled in rhymes their own pie-crust; and lastly, one named Schaller wrote a whole "Natural History" in rhyme!"

Said we not truly that a fair account of the poetry (!) of these times must read like a caricature? Yet the above paragraph is simply a fair statement of facts, of which abundant evidences have been preserved. Nay, we have more than all this to tell: the art of rhyming was not left in these times to individual cultivation; it was not a solitary occupation pursued in the lonely garret, but, like other handicrafts, had its guilds and unions, and was taught like shoemaking. In fact, joint-stock companies were formed to produce rhymes! But now we will put away the tone of ridicule; for really there was something very good in these said companies, or, to call them by their proper name, Singing and Versifying Clubs. They afforded some intellectual recreation to the people in times when it was greatly needed; and even we in England, in the nineteenth century, when we consider what are the prevailing popular amusements of our own day, must confess that we do not find ourselves in a condition to laugh fairly at these honest German citizens and handworkers of the

fifteenth century, who united themselves to serve the Muses as well as they could—who met together, when their daily tasks were done, and forgot all their toil and care while the evening hours were devoted to the recitation and singing of verses. The example is so pleasing that our readers will perhaps like to see some of its details. Improbable as it may appear to an English reader, it is a fact that versification was the favourite amusement of many of the respectable citizens and handworkers; and meetings for the composition and recitation of verse were established and well attended in Mayence, Ulm, Nuremberg, and other places. Indeed, the 'Singing School' (or *Sängerzunft*) at Nuremberg was maintained until the year 1770; while the ancient club of the same kind at Ulm has been formally dissolved even in our own times, or in the year 1839. The tone of these societies was generally, but not exclusively, religious; while their influence in affording a moral and intellectual recreation in the place of the coarse physical pleasures of the times was undoubtedly very commendable.

We will endeavour to give a slight sketch of the manners of the times in connection with one of these singing schools. At Ulm the weavers united to form a singing school. Let us imagine one of these good men preparing for the meeting a copy of verses. All day, while he is employed in his loom, he beguiles the hours of labour by conning over his verses on some scriptural topic; and now and then, perhaps, he sings over the melody which he has composed to fit his stanzas. In this he flatters himself that the *merker* (or umpire) will not find any four consecutive notes borrowed from any melody hitherto known in the school: such originality is demanded by the rules of the *Sängerzunft*. But now the time of work is over: the weaver puts aside his shuttle, covers up the good cloth, leaves the loom, and repairs (not to the 'Jolly Sailor,' or the noted 'Cordial Gin Establishment') but to the house of some good brother singer, to converse on the topics which will be brought forward at the next meeting on Sunday evening. And now the Sunday comes. In the church a board is suspended (something like the board with the number of the psalm to be sung in English churches) announcing that 'the singing-school will meet in the evening, when verses and sacred melodies on several topics will be recited and sung.' Sometimes the meeting is held in the parish church at the close of the afternoon service. In other cases, the members and their friends assemble in the town-hall. Here we find the makers of verses and the composers of sacred melodies, with their friends and pupils, and a considerable audience formed of respectable citizens with their wives. All the proceedings are conducted with great order and solemnity. In the most prominent seat we find the chief officer of the society, named the *Gemerke*, and beside him sit three or four other solemn and official persons, for whose respective offices we can hardly find suitable English names: among them, however, is the *Merker*, whom we may represent as the umpire. The society has also its 'properties.' In that large oaken chest beside the *Merker* are deposited chains of gold and silver, with suspended jewels, which have been worn by successful candidates for metrical honours. And now the solemn president, or *Gemerke* (who is, in fact, a good honest weaver of broadcloth), opens the ponderous folio Bible which lies on the desk before him, and opens at the same time

the proceedings of the meeting by beginning to read the passages which have been selected for versification. Various copies of verses are now recited and sung; faults are noticed by the Merker; sometimes (in a tune, for instance) a plagiarism is suspected, and on this perhaps some little discussion arises; but this is soon put to rest by an appeal to a heavy and strongly-clasped volume containing the notation of tunes which have gained prizes or honours. Here is discovered the exact sequence of notes on which the present candidate has founded his melody, either by accidental coincidence or by unconscious memory. Of course he withdraws his tune, determined to be more careful another time, and to trust in nothing less than strict originality. At last, after several recitations and criticisms, one is declared to be the victorious candidate. Now the Merker opens the great oaken chest, takes out a chaplet, which he places on the head of the victor, and puts round his neck a silver chain, from which a jewel is suspended. These articles still remain the property of the Zunft, or club; but the master-singer is allowed to wear them publicly on great occasions. Such a coronation was of course a source of triumph for the wife, the family, and all the relatives of the victor. Glorious with these decorations, he now secretly determines that he will go and recite his verses at the next meeting in the neighbouring town, and vanquish all the versifying shoemakers there. We may add that, at the close of a meeting, the best verses were carefully copied in a large volume, which was strictly preserved as the common property of the Zunft. In this way many productions of the master-singers have been left to our time.

'Such,' says Dr Vilmar, 'were the recreations on Sunday evenings and saints' days of our honest working forefathers in the olden time; and those who, like myself, have sprung from the working-classes, may now look back upon those quiet and innocent pastimes without being ashamed of their ancestors.' We have dwelt rather long upon this pleasing picture of olden times, because we think it carries a good and wholesome moral for our own times. Of course we do not think of anything like reviving such institutions as those old singing and versifying schools; but it is encouraging for all who would endeavour to spread any intellectual recreations among the people, to reflect that they are not aiming at an object which is imaginary and unattainable, but at one which has been a reality, and may be so again.

Apart from any of the schools of versification just described, this period was remarkable for the simple but often pathetic lyrics or secular songs which arose, as if spontaneously, among the people. Some of these have been preserved to our day: no writer's name is affixed to them; all we know of their origin is, that they sprung from the people in a time when all the feelings of the heart and the most affecting events of life seemed naturally to find expression in songs. Many of them were linked to melodies so well loved by the people, that Luther or his friends found it expedient to set their new hymns to the old song-tunes. As a specimen of their simplicity, we translate an old 'farewell' song.

Many stars are in the sky;
Many sheep together lie
In the quiet meadow;

Many birds about us fly,
And as many times I'll sigh;
'Fare you well, my treasure!'

GERMAN POETS AND POETRY.

Shall we, after long dull years,
Many sorrows, many fears,
Meet again, my treasure ?

At the close of every day,
Ere I shut my eyes I'll pray,
Heaven preserve my treasure !

Every morn, while you're away,
Soon as I awake I'll say,
'Oh return, my treasure !'

If it must be so, when lying
On my deathbed, I'll, when dying,
Think of thee, my treasure !

We must not leave the fifteenth century without some notice of the low and coarse *satires* which formed, indeed, the most prominent features in the versification of these times. The favourite objects of these satires were the clergy and the aristocracy; and the popularity gained by the most wretched productions can only be explained on the supposition that such satires truly indicated the state of popular feeling, and were received as indirect but effectual organs of the democratic principles which were now rapidly spreading. We can hardly give any quotations from these singular remains of old times, though they might furnish rich materials for 'curiosities of literature.' In one, Parson Amis, a beneficed clergyman, is represented as gaining his livelihood by a series of scandalous impositions on public credulity. Parson Kalenberg is no better: on one occasion he finds all the good ale in his cellar turned sour, and instantly devises a plan for selling it at a good price to his parishioners. He announces that on a certain day he will take a flight from the top of the steeple. Of course the peasantry collect in great numbers to witness the feat: it is a sultry summer afternoon; and as the parson keeps the spectators long waiting while he is preparing to fly, they are glad to refresh themselves even with sour ale, and pay for it the extortionate price demanded. In another popular tale, a parish priest is represented as so fatuous that he could not remember the days in a week. To remedy this defect he adopts a curious expedient: every day he 'makes a birch-broom,' and by placing the six brooms in a row, and sedulously counting them, he knows when Sunday comes, and prepares for reading mass. But some wag, aware of the priest's stratagem, steals the broom that should mark Saturday, and, consequently, on Sunday morning the poor priest is found making another broom instead of going to church. These are very mild and comparatively harmless specimens of the satires current in this period. The most pointed and severe are exactly those which, for obvious reasons, we cannot quote. We have seen nothing in Dean Swift more truculent than some of the stories which might be selected from the popular books of this period. The knight had been the hero of romances in the preceding times, and the common people—the boors, as they were called—were hardly mentioned in aristocratic poetry. But now the people, having acquired the art of versification, employed it to be revenged upon their superiors. The favourite hero of the most popular tales was now generally represented as a boor, an illiterate peasant, a professed fool, but with a strong taint of the rogue in his character—one who, by the mere force of his native wit, could refute all the clergy, answer the queries of the most learned doctor or lawyer, and reduce a bishop to silence. The coming times of insurrection and revolution were thus foreshadowed in popular literature; and we may safely assert that the very spirit which afterwards found an outlet in the terrible 'Peasants' War' may be distinctly recognised in the familiar

and comic versification of the fifteenth century. For what were the marks of the '*Volks-bücher*' (the 'People's Books') of this time? Satire, wild and coarse, expressing a contempt of all authority, ridicule of the pretensions of the scholastic or educated class, and mockery of everything represented as high and sacred. We may go so far as to say, that any reflective reader, after a fair perusal of such a series of satires, might venture to assert, even if we suppose him to be quite ignorant of the historical facts of the case, that some great revolution, political or religious, must have followed such a popular literature. Here is surely a good comment on the old text about making ballads for the people, and also a warning for those who neglect to employ the proper means of diffusing good information and intellectual recreation—who refuse, indeed, to give to a wholesome and improving literature a fair chance in its contest with the low and vile productions of the press which are the disgrace of our times. Thus speaks the fifteenth century in Germany to the nineteenth in England.

We must now leave this interesting part of our topic, and hasten to notice the progress of German poetry in the times of Luther. Of poetry, in the higher or more exclusive sense of the word, we have still little to say. Luther holds a place in the annals of poetical literature on account of the hymns he wrote in connection with the movement of the Reformation. His bold and stirring version of the psalm—'*Ein' feste Burg ist unser Gott*'—

'A safe stronghold our God is still,
A trusty shield and weapon!'

is well known, but cannot be fairly translated. This may, indeed, be said of many other popular hymns written by Luther and his friends. Their merit does not consist merely in the sentiments they convey, but rather in the union of style and purport; in the force, directness, and euphony of language; and also in the music of their rhymes, for which we could find no equivalents in English. To attempt to translate such hymns would only prove that we did not truly understand their character. A German must be the best judge of their merits, and therefore we quote the following description from Dr Vilmar's '*Lectures on German Poetry*':—'It must be especially noticed that these hymns, like our secular popular songs, were not composed to be *read*, but to be *sung*; and so closely is their melody inwoven with their meaning, that if we would judge them fairly, we must have their spirit, their metre, and their music given at once, as when they are sung by the congregation. They were indeed the sacred popular songs of the Lutheran times, and were founded in many instances on the secular melodies dear to the people from old remembrance. Thus we account for their rapid and marvellous effect in spreading the Lutheran faith. A hymn in these times was scarcely composed before its echoes were heard in every street. The people crowded around the itinerant singer (who now, in accordance with the spirit of the times, sang Luther's hymn instead of ballads), and as soon as they had heard a new hymn sung once, they would heartily take up the last verse as a chorus. Thus these sacred melodies found their way into every church and every private house; yea, and whole towns were won over to the new faith, as by a single blow, by the sound of a hymn. Such lyrics as those of Luther

—‘Rejoice my Brother Christians all!’ and ‘From depths of wo to thee I call!’ or that by Paul Speratus, ‘Salvation now has come for all!’ or that by Nicolaus Decius, ‘To God on high be thanks and praise!’—flew, as on the wings of the wind, from one side of Germany to another: they were not read merely, but, in the strongest sense of the words, were learned by heart; and so deeply printed in the memories and affections of the people, that their impression remains in the present day.’

We now turn to the secular poetry of the Lutheran times, and here we find Hans Sachs, a rhyming shoemaker, busily engaged in writing a voluminous series of familiar tales and fables in verse. Sachs has been too much despised. His name was once covered with ridicule, on account of the homely characteristics of his writings; but Goethe and other critics have restored to the honest rhymers the honour due to him in connection with the national literature of Germany. Though we can discover nothing like poetry in its highest meaning in his verses, he wrote with remarkable facility, could tell a story well, had a rich fund of genial unaffected humour, and often conveyed a deep and good moral under the disguise of a grotesque narrative. Indeed the incidents in many of his stories are so grotesque, that, although we should like to give some specimen of his verse, we have turned over many pages of his tales, vainly endeavouring to find one which would be relished by a modern taste. There is an apparent irreverence in many of them which, in Luther’s times, was regarded as not inconsistent with piety. Hans sometimes directed his homely and good-humoured satire against the soldiery. In one tale, for instance, he tells us that the Prince of Darkness had despatched a demon to bring away some half-dozen of the foot-soldiers, who were notorious for their profane conversation; but the demon himself was so terrified by their talk, and gave to his master such a description of their mode of life, that it was resolved they should be excluded even from Pandemonium. In another tale on the same subject, St Peter, the gatekeeper of Paradise, exercising charity rather than good judgment, admits a few of these ‘land-soldiers’ (*lands-knechten*) into the abode of happiness, where they soon prove the truth of the old saying, that a change of place does not insure a change of mind. Unable to enjoy any of the pleasures of the place, they soon collected their pence, and began their old amusement of gambling, which ended as usually in a violent quarrel.’ After some difficulty, St Peter contrives to eject these unpleasant guests. Such were the stories with which Hans Sachs filled so many pages. His verses may be regarded as giving a summary of the characteristics of many familiar and humorous versifiers before his times; while in ease and fluency of style, combined with not inconsiderable power of invention, he surpassed them all.

Leaving the times of Luther and Hans Sachs, we must pass very briefly over a period in national literature marked by the tame, cold, and artificial character of its so-called poetry. Style and language were now the almost exclusive objects regarded by German writers in verse. Martin Opitz (1597—1639) was the most celebrated versifier of his times, and with the aid of several compeers, contributed something towards the refinement of his native tongue, but left little or nothing worthy of notice for its poetical merits. Paul Flemming and Paul Gerhard, the writers of devotional

hymns which still hold a place in German psalmody, are the two chief exceptions to the prevailing rule of dulness in the poetical literature of the seventeenth century.

The former part of the eighteenth century produced a crowd of inferior poets or versifiers, of whom we can give no particular notices. In many respects they were superior to Opitz and his followers, but as poets they were soon lost in the superior lustre of Goethe and Schiller. Perhaps the most noticeable feature in their poems was their didactic purport. Among the writers of moral fables in verse, Christian Gellert may be distinguished on account of the surprising celebrity which his fables once enjoyed. These fables being simply the results and maxims of common sense, given in a clear, familiar, and pleasing style, were suited for a large audience; but this fact alone can hardly account for all the favour bestowed upon them. To explain it we must refer to the high popular esteem in which the personal character of Gellert was held during his lifetime, and long afterwards. He was admired and revered as a moral teacher by men of every station. The king's physician was sent to attend this writer when dying; and his death produced in Germany a general mourning, such as has seldom or never attended the fate of any other literary man. The tale of the poor countryman who took to the house of Gellert a cartload of firewood, as a grateful acknowledgment of the enjoyment he had found in reading the 'Fables,' is a fair instance of the admiration with which even the lower classes regarded the amiable moralist. In all the higher qualities of poetry, the didactic versification of Gellert was totally wanting. This judgment is equally applicable to the fables written by Ilagedorn, Lichtwer, and others in this period.

Among these inferior poets (the followers of Bodmer, Gottsched, and Gellert) Friedrich Klopstock (1724—1803) arose; and when, inspired by recollections of Milton's great work, he produced in 1748 the first three cantos of the 'Messiah,' all Germany believed that at last a great epic poet had appeared. As, when we would understand the effect of a light in painting, we must consider the shade with which it forms a contrast; so, to explain the admiration of Klopstock's poem, we must fairly estimate the contemporaneous minor poetry. Above this it arose as a cedar over shrubs and brambles. It was indeed a great poem when compared with the productions of Opitz, Gottsched, Gellert, and a crowd of other versifiers. We can scarcely imagine that any future poet, however great, can enjoy such enthusiastic praises as were lavished on Klopstock; for the estimation of the poet was in a great measure the result of the circumstances amid which he came forth. A critic says of Klopstock: 'He was like the morning star, hardly foretold by the faintest dawn, but arising almost suddenly out of darkness.' And he adds, very truly, 'It must again be deep, dark night in the world of poetry before any other star can by its appearance awaken the enthusiasm which hailed the "Messiah!"' Apart from these favourable circumstances, the qualities which recommended Klopstock's epic and other poems—especially the odes—were warmth and depth of feeling, a flowing and sometimes eloquent style, with considerable power of description. But, taken as a whole, the 'Messiah' must be regarded as heavy, prolix, and unworthy of a place among epic poems, on account of its poverty of action and progress. It

has now fallen to that rank in literature where lie the works occasionally named, but seldom or never read. The fame of Klopstock is traditional, telling what the poet *was* for his contemporaries, rather than what he *is* for modern readers. Yet his name must ever hold a distinguished place in the history of his country's literature, and will always be associated with remembrance of his amiable character and happy life; for Klopstock was one who found in literature, especially in poetry, something better than fame—happiness.

The next important epoch in the annals of German poetry is marked by the names of Lessing, Herder, Goethe, and Schiller. These four writers, unlike in other respects, may be here associated, as their united influence produced a great change in the character of poetical literature. Lessing, an able critic, prepared a path for genius by sweeping aside old pedantries; Herder enlarged the views of his contemporaries by his translations of 'Popular Ballads;' and Goethe, with Schiller, began to cultivate the new field of poetry now opened for them. These latter names have such a prominence in German literature, that we must not attempt to discuss their merits within the limits of this Paper. Their contemporaries are more easily described. Among these were many weak sentimental writers, whose names are now remembered rather on account of their connection with a great era in national literature than on account of their individual merits. It is curious that in Germany, during the latter half of the eighteenth century, or from 1767 to the time of the French Revolution, something which we may style an intellectual epidemic of a sentimental and romantic character pervaded the literary world, and produced as its symptoms a mass of wild and crude poetry and romances. The dissatisfaction, restlessness, and longing for novelty which in France was manifested in political theories, was in Germany chiefly confined to literature; and its results here were rather absurd than alarming. Goethe and Schiller suffered for a time under the prevailing disease: in the former it found a vent in the 'Sorrows of Werter;' in the latter it produced a crude drama—'The Robbers.' But these, being strong men, shook off the malady, which in others assumed the form of a chronic complaint.

'What is the position of Goethe as a poet?' is a question more easily asked than answered. Goethe, compared with many other German writers, is as clear as noonday; but surrounded as his works are now with endless criticisms and commentaries of the misty style, their light seems struggling through a fog. On no writer, ancient or modern, has such a vast amount of weak, mystical admiration, and vague, cloudy criticism been expended. His name is well known by English readers; yet not one in five hundred would be able to reply, in a clear and concise style, to the question, Why is the name of Goethe so prominent in German literature? Is it because he wrote 'Faust?' Nay; for the best critics say that this poem displays only a part of the writer's character and genius. Is it on account of his lyrics and other short poems? These are very good in their kind, but surely not sufficient to make a European reputation. We need not ask, Did his greatness consist in his dramatic powers? for his 'Tasso,' 'Egmont,' and 'Natural Daughter,' when regarded as dramas, are very deficient. Or was he a great artist in the construction of his

novels? No; it must be confessed by every one who is not a blind admirer that, when seen in an artistic point of view, the 'Wilhelm Meister' and the other novel are very imperfect. Then why is Goethe so widely celebrated? Or why have his character and his works called forth voluminous comments equal in number to those upon Shakspeare? Who can answer this question as clearly and concisely as we could reply to a query about any celebrated English author? For instance, if asked for the characteristics of such poets as Pope, Cowper, and Crabbe, how easily we refer to the pointed wit and happy language of the first, the pleasant didactic verse of the second, and the graphic details of human character by the third! But as soon as we ask for an explanation of Goethe's greatness, we are lost amid clouds of German mysticism; and, to mend the matter, some English and American authors increase the confusion by trying to write like Germans, and only producing what honest Sir Hugh Evans would have called 'affectations.' We believe indeed that affectation, especially what we may call 'the affectation of profundity,' has contributed greatly to the confused heap of verbiage about Goethe; and, to explain how this has been done, one instance may be given. The most mysterious of all Goethe's writings is the second part of 'Faust,' which was the latest of the writer's poetical productions. At first sight, to any English reader, it would appear to be an extremely fantastic production, as it is full of the talk of such personages as the Sirens, the Oreads, Proteus, Nereus, and Mephistopheles. On this work, which has an allegorical character, the most confused and mystical criticisms have been written. Some have regarded it as a most profoundly-significant poem: others have honestly confessed that they do not see much in it beyond good versification. To give instances: one English writer says—'The second part of "Faust" is remarkable only as a specimen of varied and harmonious versification, of which a considerable part was written when the poet was more than eighty years old.' On this a writer in an English review, supposed to be conversant with German literature, expresses a very contemptuous opinion of such a shallow judgment pronounced on such a profound work. Emerson, the American writer and lecturer, speaks of the same work in the following terms:—'The Helena, or the second part of "Faust," is a philosophy of literature set in poetry; the work of one who found himself the master of histories, mythologies, philosophies, sciences, and national literatures in the encyclopædical manner of modern erudition.' 'This reflective and critical wisdom makes the poem more truly the flower of this time.' 'The wonder of the book is its intelligence,' &c. Now, as a curiosity in literature, let the reader contrast all this mystical admiration of a very cloudy book with the following clear and fair statement by an able critic—a German—and one of the most sincere and enthusiastic of all Goethe's admirers:—Dr Vilmar says—'The allegory in this second part of "Faust" is so imperfect, that it affords not in many parts a proper veil for the figures intended to be covered by it. Already many passages in this second part have become riddles, for the hopeless solution of which we may vainly strive until we lose our temper! Others may indeed be very easily guessed; but not without the vexation of finding, under a great array of symbols, nothing more than a small, insignificant, and trivial result! So we may conclude, that in the

course of some fifty years *the whole of this second part will be almost entirely destitute of meaning, and consequently of interest.*

Is there not something very curious here? The accomplished and sound German critic, with an enthusiastic admiration of Goethe (having also a German's peculiar patience in solving riddles and explaining mysteries), still gives the above very unfavourable judgment of a book in which the English reviewer sees true profundity; while the American lecturer, with a *clairvoyance* almost peculiar to himself, sees through the work at once, makes no complaint of its mystery, but finds in it 'critical wisdom' and 'the results of eighty years of observation.' Such writing is, as Charles Lamb said jocosely of the Germans, 'very profound indeed!' We are tempted to explain the puzzle by an anecdote. On one occasion we heard an eloquent lecture on one of Goethe's works; but some of the praise bestowed did not seem to us fairly applicable to the book. So we carried the said book to the lecturer; and, when we expressed our dissent from some of his statements, he, in a very good-humoured style, confessed that he had never read through the work in question!

The preceding remarks will not be understood to imply any depreciation of Goethe as an author. We have been speaking of his critics and commentators, and not of himself. It is obvious, after the specimens of contradictory views given above, that some considerable space would be required for a fair analysis of Goethe's character. At present, we may, however, notice that the interest excited by his work in Germany is not to be explained simply by reference to his poetical works. The catalogue of his writings might shew that he must not be regarded solely as a poet. He wrote, beside his lyrical or occasional poems and his dramas, novels, memoirs, criticisms on literature and art, autobiography, essays on natural history and physical science, and a multitude of letters. Throughout all these multifarious writings we may trace the influence of a peculiar, individual, refined, and yet practical philosophy, which is implied rather than distinctly or formally inculcated; and it is partly this philosophy, as we think, which has attracted so much attention, and called forth so many comments. For ourselves, we readily confess that Goethe is more interesting as a practical philosopher than as a poet.

No such obscurity attends the characteristics of Schiller. His poetical works may be divided into two chief sections—the ballads and the dramas. In the heroic ballads, 'the Cranes of Ibycus,' the 'Fight with the Dragon,' and others, we find noble purport united with graphic narration. In other poems we see a tendency to abstract thought, which is injurious to a poet. In his dramas, which contain powerful scenes and fine sentimental passages, we often find the didactic purport brought forward in too direct a style. We are inclined to agree with A. W. Schlegel when he questions the 'reality' of Schiller's dramatic characters—to these the poet often gave either an ideal virtue or an unredeemed propensity to vice; thus making them impersonations rather than men. But our limits will not admit a full description of Schiller as a poet and a dramatist.

We have purposely omitted, in its chronological order, the name of Christoph Martin Wieland, an elder contemporary of Goethe, and one of the most prolific poetical writers of the eighteenth century; but we may now pay some attention to this writer, who affords us a very remarkable instance

of that uncertainty of some reputations in German literature to which we have alluded in the beginning of this Paper. Wieland was a man most widely celebrated in his day (1733—1813), though he is now virtually forgotten. He wrote numerous romances and poems, which were loudly applauded, and are now seldom or never read. Yet such is the influence of a traditional reputation, that it might now seem presumptuous to some English readers if we said that Wieland was hardly worthy of the name of a poet, or that his writings, taken altogether, are almost worthless. Yet we will venture to say, that in our opinion he was an artificial maker of verses rather than a true-born poet, and that we cannot even see sufficient reason for all that has been said in commendation of his prose style. To confirm this judgment, it may be well to quote the remarks of an able German critic, Dr Vilmar—the strongest part of his censure of Wieland's writings we leave untranslated.—‘Wieland,’ says Dr Vilmar, ‘was the man of his day, especially for the higher classes of society; for people infected by the fine and sweet poison of French literature, people to whom thought was tedious, and all enthusiasm was ridiculous. To such readers Wieland introduced a suitable German literature; and it is almost solely by this interest in the materials or subjects of his books that we can now comprehend how he could have been so lauded and celebrated during his life. After his death he was soon forgotten. Of the materials of his works, modern French levity in a masquerade dress, or the most insipid philosophy of the day, given *à-la-Shaftesbury* or *à-la-Voltaire*, as we find it in “Agathon,” or “Peregrinus Proteus,” or “Aristippus”—what can we call them but mummeries, destitute of both moral meaning and artistic taste? But what must be said of such contents as we find in the “Nadine,” in “Diana and Endymion,” in the “New Amadis,” or the truly abominable “Kombabus,” not to mention so many other pieces in the same vein, regarding which pieces Wieland was quite pleased with himself, because he had been able to say in plain German so many things which, as people had believed, could be fitly expressed only in French—these are matters in which none save a most degraded mind could have found pleasure, and such as could not have found readers except in a very dissolute state of society. Yea, and even in his better subjects, say rather in the only good subject (excepting the “Abderites”) on which he ever wrote—I mean in his poem of “Oberon”—how deficient is the style—how arbitrary, artificial, and fantastical, and, at the same time, how flat and dull!”

Such is the severe censure passed upon a poetical writer who was once numbered among the great men of his age. And if such a judgment is pronounced on Wieland by a very fair critic, we may venture to say that many other names in the literature of this period are now remembered merely on account of the celebrity which they once enjoyed, and not on account of their intrinsic merits. With this remark we may pass over a crowd of names which, in German works of literary history, are found around the more significant names of Goethe and Schiller. In comparison with these writers, all the other versifiers of their period must be regarded as, at best, poetical writers of mediocrity.

We can only mention, in the most cursory style, the names of a few poets among the contemporaries and followers of Goethe and Schiller. Voss deserves to be remembered rather as an able translator of Homer and

Virgil than as a poet. Schubart will be remembered for his singular history rather than on account of his poems. This writer was a very unfortunate and ill-regulated man. After he had published some frivolous satires, he was seized in the most despotic manner by the Duke of Württemberg, and imprisoned for ten years in the fortress of Asperg. His poems are curious instances of that taste for the horrible, which had its day in Germany, and is still found among the lowest classes of society. His ballads, decorated with such lines as, 'See you the blood-stain on the wall?' or, 'Ha! here's one bone, and here's another!' were once read with thrilling interest. Matthison and Gaudenz were both descriptive poets and writers of pleasing sentimental verses. Holderlin and Schulze resembled each other in the melody of their language: the latter affords a remarkable instance of misdirected talent. After losing, by early death, the young lady whom he loved, he devoted his genius to celebrate her name, 'Cecilia,' in a poem of twenty cantos! Platen was one of the most polished and correct of poetical writers; but his poems want life and interest. A similar opinion may be expressed with regard to Rückert, who has written a great number of poems. He is a fine master of versification, and has put many good sentiments in sweet metres; but is deficient in dramatic power and narrative interest. Chamisso was by birth a Frenchman, but gained a place in German literature by his tale of 'Peter Schlemihl' and several poems, which shew a partiality for gloomy topics. Uhland holds a very high place among the modern poets, chiefly on account of his popular and national ballads. Schwab in some respects resembles Uhland as a writer of ballads. The name of Theodor Körner is well known. After writing several poems and dramatic pieces of considerable promise, he joined a troop of volunteers to defend his country, and fell in a skirmish with an ambuscade. His character, and the circumstances of his death, have doubtless contributed some part of the interest attending his poems. Since the days of Schiller, poetical writers have been numerous: but we are not able to trace any sure progress in poetry. Individuality, power, and originality are wanting in a great number of productions. For every one original poet we have a crowd of imitators. This indeed is the case everywhere; but, as it appears to us, the names of such imitators are soon forgotten in England, while in Germany they are preserved too carefully in literary memoirs. It would surely improve several German works of literary history, if many insignificant names were thrown aside and forgotten. An author, of whom we can mention no one clear and strong characteristic or original trait, can hardly be worthy of remembrance. We pass over, therefore, many followers or imitators of Lessing, Wieland, and Goethe, and many others who have written poems which we cannot clearly characterise. It must be confessed that the reading public of Germany have been far too indulgent toward indifferent and imitative versifiers. Next to Goethe and Schiller, who are, in a sense of which an English reader hardly comprehends the force, the *great* poets of Germany, we would class, not the writers of long and ambitious poems, but the authors of songs and ballads which are among the most genuine and pleasing productions of German literature. Excepting the works of her two leading poets, of which we may speak in another Paper, Germany has produced little that can be called great in poetry. It is hardly necessary

to state that there never was a German Shakspeare; and for names having equal significance with such as Milton, Dryden, Pope, Cowper, Burns, Crabbe, Wordsworth, or Byron, we may look in vain through the roll of German poets. Pleasing and popular songs and romantic ballads are the best features of the poetical literature of our neighbours. In didactic purport; in mastery of real life, in vigorous narrative, stern satire, or, briefly, in strength and variety of character, it is immeasurably inferior to our English poetry.

We may now look at poetry in another way, by dividing it into several classes; and, in accordance with our belief concerning its origin, we must give the first place to lyrical productions, sacred and secular. In hymns, full of devotional feeling and powerful expression, Germany is rich; but, as we have said, these lyrics will not bear translation; for to represent them truly, meaning, metre, rhyme, and melody must be kept united: to alter their form is to destroy their character. Luther was the leader of German hymnology, and was worthily followed by such hymn-writers as Flemming and Gerhard. By other composers of sacred lyrics, a mystical and sentimental style was introduced, which was carried to its highest degree in the hymns of the 'Brüdergemeinde,' or United Brethren.

In secular songs—not merely so-called lyrics, but songs that may be *sung*—Germany has been rich ever since the times of the Minnesingers. Here we have songs celebrating the changes of nature, especially the revival of the year—full of fresh interest, such as nature alone can inspire. The first notes of the nightingale, the opening of the rose, the unfolding of the glossy green foliage in the woods; these were the darling topics of the old minstrels, and are still the themes of poetry. Here is monotony; but it is one of which the healthy mind never tires. We might endeavour to translate a specimen of these songs; for instance, an old lyric by Walter von der Vogelweide—

'Fresh flowers are springing through the grass,
And laughing at the sun;'

or a song by Philip Harsdörffer—

'The frosty old winter has hurried away,
The hillocks of snow
Have melted beneath the warm breathing of May,
And the sweet flowers blow;'

or that by Philip von Zesen—

'Awake, happy thoughts! be forgotten all sorrow!
For winter is passing away!'

But it would not be easy to preserve both the spirit and the form of such songs; and we like them too well to hurt them. The same observation may be applied to a great number of popular lyrics, such as may be found in that true German volume, to which we have no counterpart in English, 'Fincke's Household Treasury of Popular Songs,' including 'Student Songs,' 'Workmen's Songs,' 'Soldiers' Songs,' 'Lyrics for Children,' and a host of others which we cannot specify. Of one of the Bacchanalian songs, the famous 'Rhine-Wine Lied,' we give two or three verses; but this, we think, could not be fairly translated entirely:—

RHINE-WINE SONG.

Deck with green leaves the bright, o'erflowing goblet,
And drain the cup of bliss!
In all the lands of Europe, jovial comrades,
You'll find no wine like this!

The Rhine! the Rhine! 'tis there our grapes are growing;
Upon its banks the vine
Spreads out her purple clusters, richly glowing;
Be blessings on the Rhine!

Drink and sing gladly while the cup is shining,
'Be blessing on the Rhine!'
And if you know where some sick man is pining,
Go; give to him this wine!

Next to songs, we may rank odes, elegies, and sonnets; but these we regard as generally cold and artificial. The sonnets written by Goethe and Platen are among the best of their kind, and Goethe's elegies, 'Alexis and Dora' and 'Euphrosyne,' are full of poetic beauty. But passing thus briefly over this section, we find a more fruitful field in Narrative Poetry. This includes a wide range of topics and modes of treatment—fables, legends, ballads, romances, and epics. Of German epic poems we will say little; for, as we have already confessed, the notion of a long, long poem covering, with verses all in one metre, some five or six hundred octavo pages, appears to us unreasonable, even after the great works of Homer, Virgil, and Milton; and the German epics by Klopstock, Bodmer, Zacharia, Wieland, Sonnenberg, and Krug von Nidda, have only confirmed our opinion. These are certainly 'great works,' when measured as we measure cloth; but in truth, nature, and genial inspiration, they may be inferior to many short poems in our next section—Romances and Ballads. These form one of the most interesting departments of German poetry. Between the romance and the ballad we can find hardly any distinction except in the shorter form of the romance. Both give poetical narratives, interspersed with sentiment; and have for their topics either events of history, or legendary lore (sometimes supernatural), or private anecdotes, or even facts of common life. Herder may be regarded as the introducer of a new style in this department by his 'Popular Ballads of many Nations.' Bürger, having gained an acquaintance with the true, popular tone of English and Scottish ballads, imitated it very successfully in several metrical tales. The success of Bürger was chiefly due to his spirited and fluent versification, which sometimes reminds us of the melody of Burns; a far greater poet in other respects. In the topics of his poems, and their mode of treatment, Bürger is often low, coarse, and trivial. Goethe and Schiller wrote ballads which may be described in another Paper: at present, we can only notice that the latter gave to the heroic or historical ballad its highest character, as we see in his 'Fight with the Dragon,' and other similar pieces. To notice here all the names of writers who have contributed to modern poetical literature in the form of ballads and romances would be impossible; for in this fertile department writers are very numerous, and many good productions are from names of little celebrity. The

name of Bürger reminds us of that long series of goblin legends to which so many ballads have been devoted. Bürger's story of 'Leonora,' who is carried away by her spectre-lover to the charnel-house, is recommended by a vivid style of narrative and force of versification, and may represent a large class of such legends which have been received with favour in Germany. At the close of some such legend of the 'Erl-King,' or the 'Goblin of the Harz Mountains,' an English reader is disposed to ask: 'But what does it all mean?' or, 'What is the purport?' while the contented German simply enjoys the supernatural imagery without troubling himself about its human interest. There is here a very strong distinction between the tastes of the two nations. We may even say that some favourite pieces of this kind would be condemned by an English taste as weak and meaningless.

We may now give translations of a few poems culled from a large collection; but it should be premised, that our choice does not always imply that the poem has the highest degree of merit: general interest, facility of translation, and other circumstances, partly direct our selection. Many very popular ballads are founded on old legends familiar as household words in German memories, but which would fail to exercise their peculiar charm on English readers. Others are purely imaginary. To these we prefer tales having some human interest, such as we find in the following noble ballad of 'Hans Euler.' The writer, J. G. Seidl, is a native of Vienna, where he lived, some two or three years ago, as keeper of the Cabinet of Coins and Antiquities:—

HANS EULER.

'Ha! listen, Martha! heard you not that knocking at the door?
Open, and call the pilgrim in, that he may share our store;
Ha! 'tis a soldier. Welcome, sir! partake our homely fare;
Our wine and bread are good; thank God! we have enough to spare!'

'I want no food; I want no wine!' the stranger sternly said;
'Hans Euler, I have come to pay my duty to the dead:
I had a well-loved brother once, a brother whom you slew;
The threat I uttered when he fell, I come to prove it true!'

Said Euler then, 'Your brother fell in fair and open fight,
And, when I struck, my arm was raised to guard my country's right;
But if you must revenge his death—this is no place for strife—
Walk out with me. Farewell awhile, my true and loving wife!'

So saying, Euler took his sword, and o'er the hilly road,
Which ended on a rocky mount, he onward boldly strode.
Without a word, the stranger followed Euler on the way;
And now the night was vanishing before the break of day.

And as they walked on silently, the sun was rising higher,
Till all the mountain-ridges green were touched with golden fire;
Soon as they reached the chosen place, the night-mist o'er them curled,
And there, spread out below them, lay the glorious Alpine world;

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With hamlets in the valleys, flocks and herds upon the hills,
Green hollows, rocky chasms deep, bright waterfalls and rills;
And, deeply felt, although unseen, the true pervading soul,
The spirit of old Switzerland was breathing from the whole.

The stranger stood and sternly gazed—his sword was in his hand—
While Euler pointed down upon his well-loved Fatherland :
'It is for *that* I've fought,' said he; 'for that dear land I've bled,
And, when he would have hurt that land, I smote thy brother dead.

'And now that death must be revenged, and this must be the place.'
But here the stranger dropt his sword, and looked in Euler's face :
Said he, 'I do forgive thee—it was done for *Fatherland*—
And now, if thou canst pardon me, brave Euler, here's my hand !'

This, though it may be injured in our translation, seems to us a very favourable specimen of the romantic ballad, and far preferable to others telling of strange sprites rising from waters, or dwelling in the forests, or of the 'nymph of the glacier falling in love with the Alpine shepherd-boy.' There is a national taste, founded on local traditions and associations, which give a charm to many legends. Some of the legends of Germany are suited to this local or national taste; while others, like the short ballad which follows, have a true universal interest.

The tale of 'Count Eberhard' of Würtemberg, who boasted that he could safely fall asleep in his own forests in a time when other nobles lived in enmity with their dependents, has been versified, if we remember well, by several hands. The following graphic version is by Zimmermann :—

COUNT EBERHARD.

Four counts together sat to dine,
And when the feast was done,
Each, pushing round the rosy wine,
To praise his land begun.

The Margrave talked of healthful
springs,
Another praised his vines;
Bohemia spoke of precious things
In many darksome mines.

Count Eberhard sat silent there—
'Now, Würtemberg, begin!
There must be something good and fair,
Your pleasant country in !'

'In healthful springs and purple wine,'
Count Eberhard replied;
'In costly gems and gold to shine,
I cannot match your pride.

'But you shall hear a simple tale :—
One night I lost my way
Within a wood, along a vale,
And down to sleep I lay.

'And there I dreamed that I was dead,
And funeral lamps were shining
With solemn lustre round my head,
Within a vault reclining.

'And men and women stood beside
My cold, sepulchral bed;
And, shedding many tears, they
cried,
"Count Eberhard is dead !"

'A tear upon my face fell down,
And, waking with a start,
I found my head was resting on
A Würtembergian heart !

'A woodman, 'mid the forest-shade,
Had found me in my rest,
Had lifted up my head, and laid
It softly on his breast !'

The princes sat, and wondering heard,
Then said, as closed the story,
'Long live the good Count Eberhard—
His people's love his glory !'

If we have omitted to notice at length the ballads of Uhland, it is not because we are insensible to their merits. Several of them have been fairly translated into English; and as the faithful version of such poems is certainly no easy task, we will not attempt to mend what has been well done. It will be better to introduce a few pieces by writers less celebrated than Uhland. A few years ago we heard loud praise and severe censure bestowed on a young poet, Ferdinand Freiligrath, who since then has lived in London as correspondent of a foreign mercantile house. On the same day we read in an English review the praise of Freiligrath, as one of the greatest modern poets; and in a German review a bitter article, deriding the sudden reputation of the new poet, and representing him as little more than a writer of pompous and affected phraseology. Guessing that the truth might lie somewhere between these extremes, we read the poems in question, and were pleased to find that, among many poems merely descriptive of foreign scenery, and marked by a tone of exaggeration, there were others, such as the lines on 'German Emigrants,' the 'Pictured Bible,' and the poem quoted below, which evinced true poetical genius. As a favourable specimen of Freiligrath's style, we quote the

DEATH OF THE EMIGRANT LEADER.

'In the fog the sails are dripping,
Mist lies thickly o'er the bay.
On the masts suspend the lanterns—
Sea and sky are leaden-gray.
Deadly weather! sickness breathing—
Come to prayers with covered head,
Women, come and bring your children—
In the cabin see the dead.'

And the German peasant-people,
With the Boston seaman, go
Down the ladder, bow their heads
In the cabin small and low:
There the pilgrims, new homes seeking,
Sailing o'er the western sea,
Find, in burial-garments lying,
The leader of their company.

He had built of German firs
The raft which all their chattels bore
Along the Neckar to the Rhine,
And down the Rhine to the seashore.
The old man, with a heavy heart,
Torn loose from his paternal ground,
Had said to them, 'We must depart—
Another country must be found:

'In the west our day is breaking—
Westward lies our morning-red—
Let us raise our log-huts yonder
Where freedom lives within a shed.
Let us sow our sweat-drops yonder
Where they will not idly sleep—
Yonder let us turn the clods
Where he who ploughs may dare to reap!

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'To the old, unbroken forest,
 Let us all our households bear,
 Plant them 'mid the wide savannas—
 I will be your patriarch there.
 From our land, like those old shepherds,
 Famed in Bible-story, going,
 Let our guiding, fiery pillar,
 Be the light for ever glowing.

'In that constant light confiding,
 I will lead you to your rest :
 Happy, for my children seeing
 New homes rising in the West.
 Children, 'tis for you I travel—
 (Home would give these limbs a grave)
 'Tis for you I bind my girdle,
 And nerve my heart to cross the wave.

'Up ! away ! your Goshen leaving,
 Like the men of olden day.'
 Ah, he only saw, like Moses,
 Canaan's pastures far away !
 On the sea the old man died—
 He and all his wishes rest :
 Nor success nor disappointment
 More shall move his quiet breast !

Now the men without a leader
 Come to give him to the deep :
 Children hide themselves in terror,
 While their mothers come to weep.
 And the men, with earnest faces,
 Gaze upon the foreign shore,
 Where the patriarch, old and saintly,
 Guides their pilgrimage no more.

'In the fog the sails are dripping,
 Sleeps the bay in misty gloom.
 Breathe a prayer—the ropes are slipping—
 (Give him to his watery tomb.)
 Tears are flowing, waves are plashing,
 Sea-birds scream above the dead.
 For fifty years he ploughed the ground ;
 But 'neath the billows rests his head !

As a specimen of Freiligrath's more melodious versification, we give the
 'Pictured Bible,' a remembrance of childhood. The last verse appears to
 us to be full of genuine pathos :—

THE PICTURED BIBLE.

Friend of my early days,
 Thou old, brown, folio tome,
 Oft opened with amaze
 Within my childhood's home ;
 Thy many-pictured pages,
 Beheld with glad surprise,
 Would lure me from my playmates
 To Oriental skies.

Of foreign zones the portals
 Thy magic keys unfolding—
 In thee, as in a mirror,
 The eastern lands beholding,
 I saw before me spreading
 A world of new delight—
 Palms, deserts, camels, shepherds,
 And tents of snowy white.

I found in thee, for friends,
The wise and valiant men
Of Israel, whose heroic deeds
Are writ with holy pen ;
And dark-brown Jewish maidens
With festive dance and song,
Or fairly dressed for bridal,
Thy pictured leaves among.

The old life patriarchal
Did beautifully shine
With angels hovering over
The good old men divine.
Their long, long pilgrinages
I traced through all the way,
While on the stool before me
Thy pages open lay.

I feel as if thy covers
Were opened for me now,
Again to see thy wonders,
I bend my eager brow ;
Again behold thy pictures,
With rapt and earnest gaze,
In fresh and shining colours,
As in my early days.

The borders of grotesque,
With figures strange and wild,
I see their subtle tracery,
Admiring, as a child.
The flowers and branches cunningly
Round every picture twined,
In every curious leaf and bloom
Some meaning for the mind !

And my mother, as she taught me,
When questioning, I came,
Tells every picture's story,
Gives every place its name,
Fills with old songs and sayings
My memory all the while—
My father sits beside us
And listens with a smile.

Oh childhood ! lost for ever !
Gone like a vision by—
The pictured Bible's splendour,
The young, believing eye ;
The father and the mother,
The still, contented mind,
The love and joy of childhood—
All, all are left behind !

The following simple but pathetic little romance, by a poet named Reichenau, has an interest like that of the 'Emigrant-Leader.' The style of the original is so melodious that it might well be set to music as a glee for four voices : —

THE BANISHED LITHUANIANS.

Son. Why, oh my father, must you break
From the green ash this sturdy stake ?

Father. 'Tis to prop my worn limbs on our long, long way—
We must leave our dear land at the break of day !

Daughter. And, mother, why must you put away
My cap and frock and boddice gay ?

Mother. My daughter, here we no more must stay—
We must leave our dear home in the morning gray !

S. In yon new land are the meadows green ?
Are the trout in the clear, swift rivers seen ?

F. My boy, you must rove in the fields no more,
Nor throw out your line from the pebbled shore.

D. In yon new land are the flax-fields blue ?
Will the roses shine in the morning dew ?

M. Such joys, oh my daughter, no more must be ours ;
We must say farewell to the fields and flowers !

S. Then, father, how long sadly must we roam ?
Ah, when shall we once more come to our home ?

D. And, mother, when may we return and see
Our flax-field and garden, so dear to me ?

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All. When backward the river Niemen flows—
When on the salt sea blooms the rose—
When fruit on the barren rocks we find—
Or, when our rulers are just and kind!

The above simple verses confirm the opinion given by a German critic, that the only way in which the poet can serve the people is by seizing on the poetical features of real life. Young poets recently have written directly on social and political topics, but have generally fallen into mere declamation, and degraded the character of poetry, which, when true, is always sure to be useful, though indirectly. Burns's familiar tale of the 'Twa Dogs' has perhaps done more to awaken kindly feelings toward the poor than any essay or sermon written formally for that purpose.

The above have been given as specimens of the ballad having connection with the interests of real life. We must pass over very briefly a number of romances founded on supernatural legends. Some of the ballads of Ludwig Uhland, one of the best modern poets, have this character. The water-nymph, the erl-king, the wood-nymph, Lorelei, and many other creatures of German fiction, play their parts in these romances. But, as a superior specimen of the imaginative ballad, we may select one by Joseph Matzerath, a poet of whom we only know that a short time ago he was living at Cologne. These verses, though vague, present to us a fine ideal; and the scenery, though slightly touched, is grand:—

THE KING OF THE SEVEN HILLS.

In ancient times, beside the Rhine, a king sat on his throne,
And all his people called him 'good'—no other name is known.

Seven hills and seven old castles marked the land beneath his sway.
His children all were beautiful and cheerful as the day.

Oft, clad in simple garments, he travelled through the land,
And to the poorest subject there he gave a friendly hand.

Now when this good old king believed his latest hour was nigh,
He bade his servants bear him to a neighbouring mountain high:

Below he saw the pleasant fields in cloudless sunlight shine,
While through the valleys, brightly green, flowed peacefully the Rhine;

And pastures, gaily decked with flowers, extended far away;
While round them stood the mighty hills in darkly-blue array;

And on the hills along the Rhine seven noble castles frown,
Stern guardians! on their charge below for ever looking down.

Long gazed the king upon that land; his eyes with tears o'erflow—
He cries, 'My own loved country! I must bless thee ere I go!—

'Oh fairest of all rivers! my own beloved Rhine!
How beauteous are the pastures all that on thy margin shine.

'To leave thee, oh my land! wakes my bosom's latest sigh,
Let me spend my breath in blessing thee, and so, contented, die.

CHAMBERS'S PAPERS FOR THE PEOPLE.

'My good and loving people all! my land! farewell for ever!
May sorrow and oppression come within your borders never!

'May people, land, and river all, in sure protection lie
For ever 'neath the guardianship of the Almighty's eye.'

Soon as the blessing was pronounced, the good old king was dead,
And the halo of the setting sun shone all around his head.

That king was always called 'the good'—no other name is known;
But his blessing still is resting on the land he called his own.

Other ballads are rather sentimental than narrative, and give us traits of individual character and feeling. As a brief specimen of this class, the following verses by Robert Reinick, who is a painter as well as a poet, may be given:—

THE RETURN.

When one returns, with hopeful tread, From travel to his place of birth, And finds his dearest maiden dead— That is the greatest woe on earth!	'And here,' I whispered, 'kneels in prayer That maiden, and for me she prays'; I moved with silent footstep there, And hardly dared around to gaze.
---	--

One bright and early Sabbath-day, I came into my native place; Long had I carried, far away, The memory of one lovely face.	Then suddenly (I did not know Why seem'd the church so sad and dim) The choir began, with voices low, To sing an old funeral hymn.
--	--

I stepped into the church to see The spot where first that face I saw; The organ's solemn harmony Pour'd thrilling tones of love and	Amid the mourners on I press'd, And to the burial-chancel came: There stood the bier, with roses dress'd, And on the coffin was <i>her name!</i>
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In the following short poem by Franz Gaudy, who died in 1840, the vein of sentiment is truly German:—

MUSIC FOR THE DYING.

In the darkly-curtained chamber, The lamp's flame glimmers low, And throws a trembling lustre On the old man's pallid brow.	But hark! some blithe companions Come, singing, down the street: The tones come nearer, nearer, In concord full and sweet.
--	---

His children stand together In silence round his bed, And strive to dry their tears, But more will still be shed.	The old man lifts his eyelids; His soul is deeply stirr'd— He listens to the music, And catches every word.
--	--

They press each other's hand, Their anguish to conceal; No human words can tell How sorrowful they feel!	'My son's songs they are singing!' Says he, as life's strings sever; Then down he lays his head, And shuts his eyes for ever.
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We should be pleased to find among these ballads a greater number descriptive of national life and manners; but in this style of writing many German poets are remarkably deficient. Platen, for instance, who was one

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of the greatest masters of poetical diction, devoted nearly all his poems to foreign topics. His best productions are his odes and sonnets, which are very chaste and beautiful in style. From his miscellaneous verses we may cull the following ballad on an incident in Oriental history :—

HARMOSAN.

The throne of the Sassanides was shatter'd on the ground,
The Moslem hand thy hoard of wealth, O Ctesiphon, had found,
When Omar to the Oxus came, through many a bloody day,
And Jesdegerd, the Persian king, among the corpses lay.

And as the Arabian caliph to count the spoil began,
Before him came a satrap, bound—his name was Harmosan:
The last was he to quit the field, where many fell in vain,
Or yield his sword; but now his hands were fastened with a chain.

Then Omar darkly frowned on him, and thus the victor said:—
' Know you how crimson is the hand that faithful blood hath shed? '
' My doom awaits your pleasure now—the power is on your side—
A victor's word is always right!'—so Harmosan replied.

' I have but one request to make, whatever fate be mine—
For these three days I have not drunk—bring me a cup of wine! '
Then Omar nodded, and his slaves brought presently the cup,
But, fearing fraud, suspiciously the captive held it up.

' Why drink you not? the Mussulman will never deceive a guest:
You shall not die till you have drunk that wine—"Tis of the best.'
The Persian seized the cup at once, and cast a smile around,
Then dash'd the goblet down—the wine ran streaming o'er the ground.

As Omar's chieftains saw the trick, they drew with savage frown,
Out from their sheaths the scimitars to cut the Persian down;
But Omar cried—' So let him live! Faithful, put up the sword!
If aught on earth is holy still, it is a hero's word! '

Many of the short poems classed among romances and ballads are only remarkable for the melody and force of language with which they relate some tale or anecdote. Such is the character of the following lines by Leitner, telling the well-known story of our King Canute :—

KING CANUTE.

On the strand at Southampton King Canute sat down,
Clad in purple array, and with sceptre and crown—
And the waves are loudly roaring.

At the nod of his brow his vassals all bow,
And he looks, in his pride, o'er the foaming tide,
Where the waves were loudly roaring.

Said he, ' On my throne, I am ruler alone
Over all the dry ground, far, far all around '—
(And the waves are loudly roaring.)

' And now, swelling sea! I will rule over thee;
I will master thy waves—they shall serve me as slaves,
Though blustering now so loudly! '

But a wave, with a roar, threw itself on the shore,
And cast its salt spray o'er the monarch's array,
And curled round his footstool proudly.

Then Canute laid down his sceptre and crown;
For the voice of the tide had astounded his pride,
While the billows were round him roaring;

And he said, 'What is man! Let all worship be paid
To Him who the sea and the dry land made,
And who ruleth the billows roaring!'

It might be supposed that a people so famous for their metaphysical speculations would make even poetry itself a vehicle for abstract thought; but this is not the case with the Germans. They have no contemplative poet, like our lately-deceased Wordsworth; nor have they received with any marked favour didactic poetry, like that of Young and Cowper. With some few exceptions, their didactic verse may be described as very poor. Among the exceptions we may mention the poems of Leopold Schefer, who may be styled the poet of German philosophy, as his verses give, in bold and often very eloquent language, the results of Schelling and Hegel's systems. Interspersed among such verses we find many ethical lessons, which are made poetical by the imagery used to illustrate them. The following pieces may serve as specimens of his style:—

A LESSON FROM A FOUNTAIN.

'What one can never do for me again,
That I'll not do for him. To none I owe
What he ne'er did for me, and ne'er can do.'
And thus will you live justly, well and nobly?
Then first of all, grant not your child a grave;
For sure your child can never bury you!
Follow no friend to his last resting-place;
For he can never rise to follow you!
Give no poor wanderer a crust of bread,
Lest he should never meet you and return it!
Clothe not the poor till he can so clothe you!
And bind not up your house-dog's broken limb:
He'll ne'er return that self-same benefit;
The hound can only bark and keep your door.
The beggar only says, 'May God reward you!'
But I say—*Whatsoever thing you do,*
None other can do that for you again.
Either that same thing you may never need,
Or if you need it, it may not be found.
Humanity will always be around you;
Hear, then, my counsel—hear the word divine:
To every man give that which most he needs,
Do that which he can never do for you!
Thus live you like the spring that gives you water,
And like the grape that sheds for you its blood,
And like the rose that perfume sheds for you,
And like the bread that satisfies your need.

GERMAN POETS AND POETRY.

THANKSGIVING FOR SORROWS.

To care for others, that they may not suffer
 What we have suffered, is divine well-doing—
 The noblest vote of thanks for all our sorrows!
 And daily thus the good man giveth thanks
 To God, and also to humanity,
 Which hourly is in need of aid and guidance.
 And who has not known misery! Dear soul!
 Who would not thank God for his sorrows all,
 When in their working they become so sweet!
 Good for ourselves and for humanity!
 'Tis thus the roots of the aloe-tree are bitter,
 But cast upon the glowing coals, how sweet,
 How lasting and diffusive is their fragrance!
 Yea, I have seen a lame and halting child
 Prop up most tenderly a broken plant;
 And a poor mother, whose own child was burnt,
 Snatch from the flame the children of another.
 So, generous man, return thou constant thanks
 For all thy griefs to God and to mankind,
 And ending grief will make unending joy!
 Or, if it end not, it will be pure blessing
 While in the trying furnace, thou dost good.
 And if from wo released, and happy, spread,
 Thy happiness all round thee. So doth God.
 Suffering or happy, man, be always thankful!

Of recent poetical productions it would not be easy to speak with perfect fairness. As some interval of space is required, that we may see and judge well the proportions of the town in which we dwell, so an interval of time seems necessary to form a fair judgment of the works of our contemporaries. As an instance of this how much better can we now estimate Wordsworth than in the time when he was regarded, even by the acute and excellent Francis Jeffrey, as a writer of mere puerile verses! The most remarkable feature in recent German poetry is, perhaps, its tendency to meddle with political and social questions. We allude to the poems of Hoffmann von Fallersleben and the war-lyrics of Herwegh. Hoffmann is a satirist of considerable humour, but has not improved his poetry by devoting it to politics—the 'king of Prussia,' the 'Zollverein,' 'the constitution,' and 'German unity,' not forgetting that equally dreamy affair, the 'German fleet:' these may be good things to fill newspapers, but are very dry and dreary topics for poetry. Herwegh is a very terrible poet. For every evil he has one remedy—the sword; and he seems to have forgotten that this nostrum has been tried frequently, but generally with such bad effect as to make wise men ask for another mode of treatment. 'It is now the time for hate!' cries Herwegh—meaning, we suppose, for party rancour, as if that time had not lasted long enough. In another lyric he exclaims—

'Tear the crosses from the earth,
 And turn them into swords!'

On this a very cool critic observes, that 'it would be a mere waste of time, as iron crosses are very rare in Germany, while iron in other shapes is

plentiful enough.' Another recent poet, Geibel, one who is not smitten with the war-mania, addresses to Herwegh a poetical remonstrance, from which we translate one verse :—

TO GEORGE HERWEGH.

Like Peter, then, 'put up thy sword,'
And close at once your martial rhymes ;
Or look at Paris now and learn,
Freedom is not the child of crimes !
With earnest minds and patient labour
The world's *true* battle must be fought ;
Better than musket, pike, and sabre,
The spirit's power—the power of thought !

The name of Geibel affords an instance of the uncertainty of a great part of contemporary criticism. We have read several of Geibel's poems, and have found in them no signs of great creative genius, but melody of language and poetical taste ; yet an able German critic gives the following contemptuous estimate of this young poet, who happens to enjoy a small pension from the king of Prussia :—'The task of appreciating Herr Geibel's value as a poet is very easy, as he is annually credited by the state to the extent of 300 dollars. This, at the rate of three and a half per cent., makes the nominal capital value of Herr G. not less than 8571 dollars, 12 groschen, and 10' pfennige—a very high estimate of a young poet in these times !' Surely Jeremy Bentham himself could not have desired a more utilitarian style of poetical criticism than this ! We append a translation of one of Emanuel Geibel's poems :—

SPRING'S REVELATION.

Come to the forests, sceptics, leave your poring,
List to its thousand voices, all combining ;
See its live columns, twined with roses, soaring,
See its bright roof green boughs with boughs entwining.

Like incense, perfumes from all flowers abounding,
Like golden tapers see the sunbeams quiver ;
And 'jubilate' to the heavens are sounding
Voices from birds, green boughs, and flowing river.

And heaven itself, in love, is lowly bowing
To fold the earth, its bride, in dalliance new ;
All creatures thrill, with love's fire irily glowing,
Your hearts, however cold, must tremble too !

Now say you 'Nay, 'tis all a hollow show,
A mere machine, and nothing more we trace ;'
Now say 'Tis nought' to all love's overflow,
And from your lips dash off the cup of grace !

In vain—you cannot—if you did the wrong,
Creation's voice would hush your wretched *nay* ;
Unheard amid the thousand-voiced song
Of all glad creatures loudly uttering—*yea* !

The preceding remarks on Herwegh, and other recent writers of political verses, by no means imply that poetry must be confined to imagination, and must have no relation to the interests of real life. We would rather urge that a poetry of true living interest is wanting in our day; but it must treat the questions of practical life in a truly poetical, and not a mere declamatory style. With this condition we would welcome the lowliest verses of true human interest rather than more ambitious poems of a purely imaginative cast. No poetry can long delight which is altogether alien to our real life. The poet may transcend our real life, he may exalt it by imagination, but he must not leave it behind him. And in our day, when the life-breath of an elevating, philanthropic poetry ought to be infused throughout our social institutions, pervading the dwellings of the poor, and sanctifying the low by bringing it into communion with the lofty; when men are waiting to know themselves that they may fulfil their mission upon earth; when they feel

‘How small of all the ills which hearts endure,
That part which kings or laws can cause or cure;’

when we peculiarly need a sincere union between our literature and our life; when we want books that we may take to ourselves as bosom-friends—books that we may not only read, but believe and love; at such a time, the poet who would treat us with another epic about Prince Arthur, or any similar composition, would be very much like the comforters of Job, who attempted to cure his sorrows by studied orations, very sublime, but very unseasonable.

It is a common opinion among literary men in Germany, that the present age is marked with a decline of poetry; and some speak even of its extinction. Gervinus, a well-known critic, advises all his poetical young friends to shun verses, and devote themselves to practical life. We do not see clearly why poetry and real life should be separated. It is true that the age for long poems, for reading verses by the thousand, seems to have passed away, and the present day, vexed with its political and social questions, is certainly not favourable to that studious and exclusive devotion to poetry which we have seen in other times; but let us reform the world as we will, external changes or amended realities will never make us independent of imaginative pleasures. After all that is done for us abroad, we shall be poor and barren unless we can say with the writer of the fine old song—

‘My mind to me a kingdom is!’

But it would be idle to discuss such a question as the extinction of poetry: it will take place in that time, perhaps, when, as Jean Paul prophesies, all men (and of course all women) will be authors, and newspapers will be edited at the North Pole. In short, so far as poetry is an essential part of our mental nature, it will endure. Many artificial kinds will vanish, long epics made to measure, and other heavy pieces of verse, containing some nine parts of dry mechanism for every one of inspiration, will probably pass away and be forgotten; but the true song, the romantic ballad, the vividly-told story in verse, will continue to charm the future gene-

rations; sorrows and joys, hopes and memories, will demand poetic utterance; nature will claim her tribute of praise; and poets will doubtless hail the flowers of spring when the grandchildren of the present age will have passed away. So says Count Auersperg, a modern Austrian poet, whose verses on this topic form here a suitable conclusion:—

THE LAST POET.

‘ When will be poets weary,
And throw their harps away?
When will be sung and ended
The oft-repeated lay?’

As long as the sun’s chariot
Rolls in the heavenly blue,
As long as human faces
Are gladdened with the view;

Long as the sky’s loud thunder
Is echoed from the hill,
And, touched with dread and wonder,
A human heart can thrill;

And while, through melting tempest,
The rainbow spans the air,
And gladdened human bosoms
Can hail the token fair;

And long as night the ether
With stars and planets sows,
And man can read the meaning
That in golden letters glows;

As long as shines the moon
Upon our nightly rest,
And the forest waves its branches
Above the weary breast;

As long as blooms the spring
And while the roses blow,
While smiles can dimple cheeks,
And eyes with joy o’erflow;

And while the cypress dark,
O’er the grave its head can shake,
And while an eye can weep,
And while a heart can break;

So long on earth shall live
True poesy divine,
And make our earthly life
In heavenly colours shine.

And singing, all alone,
The last of living men,
Upon earth’s garden green,
Shall be a poet then.

God holds his fair creation
In his hand, a blooming rose,
He smiles on it with pleasure,
And in his smile it glows:

But when the giant-flower
For ever dies away,
And earth and sun, its blossoms,
Like blossoms of spring decay;

Then ask the poet—then—
If you live to see the day—
‘ When will be sung and ended
The oft-repeated lay?’

THE DESERTS OF AFRICA.

I.

Geography of the Deserts—Physical Structure and Leading Features—Vegetable and Animal Productions—Conjectures as to the Origin of the Deserts.

THE northern coast of Africa has long been known to the civilised world, and once formed no unimportant part of its political and social system. But though Egypt took the lead in science, and Carthage in commercial enterprise, yet the progress of civilisation does not appear to have extended at any time beyond the tracts of land immediately bordering on the Nile and the Mediterranean. A few days' journey into the interior placed the traveller on apparently endless plains of shifting sand; a boundary which arrested the victorious career of Cambyzes and Alexander, and which has, in all subsequent ages, baffled every attempt at colonisation and improvement. Till within the last few years, the immense region which extends from the fertile shores of the Mediterranean to the country called Soudan, or Nigritia, has been left a blank or dotted space on our maps, marked in large letters 'Sahara, or the Great Desert;' as though nature, departing from her usual diversity of operations, had here adopted the rule of monotony and uniformity, and had spread in every direction a sheet of burning sand. The imagination of poets has availed itself of the silence of geographers, and represented this as a region without a blade of grass, and traversed by no living thing, except wild beasts of prey, and here and there a tribe of savages, ignorant of the primary wants of individual life which attach man to the soil, as well as of the first elements of social existence which unite him to his fellow-men.

Travellers from England have from time to time ventured into the mysterious abyss; and the few who have returned to tell what they saw, have furnished some interesting particulars concerning the route they pursued, and the people they encountered. Their aim, however, was rather to get through the Desert than to become acquainted with it, the great object of curiosity being the Negro country which lies beyond. But since the French assumed the sovereignty of Algeria in 1830, they have felt, like all preceding conquerors of this territory, the impossibility of colonising and civilising it, without exercising a corresponding influence on the adjoining desert; and thus the Sahara itself has become an object

of deep attention. They have laboured assiduously to understand its resources, the social condition of its tribes, and the relation which subsists between them and the inhabitants of the surrounding countries. It must be added, that they have made attempts as futile as unwarrantable, to compel the Saharians to receive law and civilisation at their hands. Their utmost success in this respect has been, to obtain a scanty tribute from some of the Oases; to plunder and devastate others whose inhabitants fled before them; and to drive the streams of commerce from their own province to the neighbouring states of Morocco and Tripoli. Meanwhile, a vast body of information has been collected, chiefly with reference to the northern and western parts of Sahara; while our own countryman, Mr Richardson, who penetrated the Desert farther towards the east in the year 1846, has made us acquainted with a portion which the French could know only by hearsay. Recent discoveries in Central Africa have thrown new interest around the deserts which form its northern boundary; and the more so, as it is the present opinion that the most eligible route to Nigritia is across the wastes of Sahara from the Mediterranean shores, rather than through the pestilential forests and savage populations which are found between the Senegal and the Niger.

The desert region which we propose now to describe is bounded on the north by the states of Barbary, on the west by the Atlantic Ocean, on the south by Soudan, or Nigritia, and the river Senegal, and on the east by Egypt and Nubia. Adopting the ancient classical figure, we should call this vast expanse an ocean, dividing the continent of the black race from the abodes of white men: as such, it is traversed by powerful fleets, infested with daring freebooters, and studded here and there with single islands or numerous archipelagoes. It is difficult to assign its precise limits to the north, on account of the interruptions to which it is subject in that direction. It has been usual to consider the Great Sahara as reaching from about the 16th to the 29th parallels, and to call by various names—as the Little Desert, the Desert of Anghad, the Desert of Shott, &c.—those gulfs of the sandy ocean which project farther north; while the region of numerous oases, which form the northern skirting of the Sahara, have been denominated Beled-el-Jerid, or the Date-Country.

The French have taken great pains to distinguish the last-named region, with its numerous, intelligent, and industrious population, from what they call the Central Desert, or Falat. Nay, they have made up their minds that, in consequence of its commercial dependence on the Tell for some of the first necessities of life, it cannot possibly exist under a separate régime. In the maps, therefore, which were published by order of the government in 1844, Algeria is made to comprise the whole tract of country southward to the 32d degree of north latitude in the west, and about the 34th degree at the eastern extremity. At the same time, these geographers have been considerate enough to suppose that their neighbours would like a slice as well as themselves; and they have allotted to the other Barbary states respectively all the oases which lie scattered on their southern frontiers. Thus have the Little Desert and the Date-Country completely disappeared; having become the *Sahara Marocain*, *Sahara Algerien*, and *Sahara Tunisien*. The partition and appropriation have been made prospectively on

paper, than which nothing is more easy—our friends in France having never, in all probability, seen the recipe of our shrewd countrywoman, Meg Dods, commencing with ‘First catch the hare.’ It is certainly convenient to have a general name for these comparatively fertile portions of the Desert. The term Date-Country is in many respects ineligible, as it conveys the idea of great fertility; and by no means suggests the fact that it is, as a whole, a desert region, absolutely barren and uninhabitable in many places, though abounding towards the east in the fertile spots called *oases*, which are generally, but not universally, congenial to the date. The fact is, that this fruit attains its greatest perfection in some of those verdant spots which are found in the very heart of the Central Desert; and were it only on this ground, the appellation Date-Country is unsuitable for distinguishing the region of numerous oases in the north from the more thinly-sown portion in the centre. We may therefore so far adopt the French nomenclature, as to call this interesting, and now pretty well-known country, ‘the Northern Sahara,’ in contradistinction to the Central, which it might confuse the English reader to denominate the Palat, as the term Sahara is retained in our best maps.*

The inhabitants of the Desert know no other division of their country than that of tribes and oases—the very names of which were long unknown in Europe, but are now to some extent ascertained and defined. Instead, however, of burdening the reader’s memory with a large number of names which he might find in no map within his reach, and perhaps might never again meet in the course of his reading, we shall merely point out the oases which are most important from their external relations, and which we may have occasion afterwards to mention.

Beginning from the west, and proceeding along the northern border, the first fertile spots to be noted are El-Harib, important as a resting-place on the direct route from the city of Morocco to Timbuctoo; and Tafilet, the capital of the Shereef tribe, and the centre of an extensive commerce with the negro country, the interior of Morocco, and the East. Tafilet is not a single oasis, but a cluster; for fertile spots are both few and small west of the second degree of east longitude, owing, it is believed, to the circumstance that the wind blows from the east nine months in the year, rushing into a hurricane at certain seasons, and that, in the course of time, it has accumulated the sand towards the west. In the Algerian Sahara, the most southern oases are El-Abied-Sidi-Sheik, Wad-Miab, Wad-Reklah, Wad-Reer, and Wad-Sooft;† forming a chain of fertile spots, south of which all is sterility, and not even a village is to be seen during several days’ journey. The fertile belt which stretches along the shores of the Mediterranean, and by the natives called the Tell, is from 50 to 120 miles broad in the province of Algiers, but it becomes a very narrow strip in the regency of

* ‘The Sahara,’ says a writer in the *Edinburgh Review*, ‘is now ascertained to consist of a vast archipelago of oases; each of them peopled by a tribe of the Moorish race or its offshoots, more civilised, and more capable of receiving the lessons of civilisation, than the houseless Arabs of the Tell.’ We shall sadly mistake if we understand such a passage as this with respect to the Central Desert of Africa; whereas it refers only to that portion which we have been accustomed to call the Date-Country, but to which the French have now not only appropriated, but restricted the name Sahara.

† Better known by their towns, Metili, Gardeai, Tuggurt, and Temacin.

Tripoli; and an English traveller remarks here, that the distinction between Great and Little Deserts is quite fictitious: it is all Sahara, and the sands reach the very walls of Tripoli. Two great oases, or rather archipelagoes, facilitate the intercourse between the above-named points and the interior of Africa: they are Fezzan, of which the capital is Mourzouk, and Twât, whose chief towns are Ain-salah, Agabli, and Timimoom. The space, however, between these and the nearest of the northern oases is very formidable, and would be almost impassable if nature had not placed two resting-places on the two principal routes. El-Golea lies between Algeria and Twât; Ghadamis * between Tunis and Fezzan. Timbuctoo and Kashna are the great marts in the negro country with which commercial relations are maintained in a manner we shall hereafter describe.

The eastern part of the Desert, sometimes distinguished as the Libyan, offers no points of similar interest, except Bilna, the chief town, famous for its immense salt beds, whence large quantities are annually exported to Nigritia. But we must not overlook the line of oases which is found running north and south near the extreme eastern limit of these dreary wastes. Here are Darfoor, Selimeh, the Great and Little Oases of Thebes, the natron lakes, and the Baha-bela-ma, or dry river. The Great Oasis is 120 miles long and 4 or 5 broad; the lesser, separated from it by 40 miles of desert, is similar in form. In the Valley of Nitrium is another beautiful spot, which was a favourite retreat of Christian monks in the second century. Here remain four out of 360 convents, and from them some valuable manuscripts of ancient date have recently been obtained. Another oasis in this direction contains splendid ruins, supposed to be those of the famous temple of Jupiter Ammon.

Returning from the ancient to the modern, from the poetical to the useful, we remark that the route almost directly south from Ghadamis to Kashna has, since the adventures of Lyon, Richardson, and others, become pretty well known, and is ascertained to be a line of great commercial activity, and abounding with towns and villages. Of the former, Ghat † is celebrated as a market or fair, and Agades as the capital of the Targhee tribes in this district. Aheer is another important town, as it is on the way from Morocco (by Twât) to Kashna; and also as it maintains commerce with Bilna, Ghat, and Mourzouk. We know little of the tracts which lie west of Aheer, but on the line from Twât to Timbuctoo we find Mabrook, thrice welcome to the traveller who has met with no water for ten days before reaching it. Tishet, Toudenî, and Wadan ‡ are generally marked on modern maps on account of their salt beds, which form a valuable article of commerce.

The knowledge which we possess of the physical structure of the Desert is still very incomplete. We may, however, add some general views of the nature and aspect of its surface, and notice some of its most remarkable features. If we begin our examination with the western portion, a journey along the coast offers nothing but low sandy tracts, broken here and there by rocky headlands, neither bold nor lofty; the land is not perceived at sea beyond a very short distance, which is doubtless the principal reason

* Written by French geographers R'Dames.

† Or Kât.

‡ Or Hoden.

of the numerous shipwrecks that have occurred on this inhospitable shore. Leaving the coast, the shifting sand extends but a few days' journey at most, and we arrive at a somewhat elevated plain, which appears very extensive. It is close, uniform, stony, and arid in the extreme, but here and there interrupted by a hollow or large ravine, 150 or 200 feet deep, whose steep sides afford occasional springs of water. That part of the Desert which lies between El-Harib and Timbuctoo is extremely arid, and destitute of wells, indicating that in this space there must be some point of culmination, or a line of rising-ground to separate the waters, for we find much sand on the route of Caillié; and it is well known that sand and springs abound chiefly in low grounds, and that it is especially near the lines that divide the waters that there appear few inducements to bore. A similar swelling has been remarked between Twât and Timbuctoo. On leaving Agabli, the most southern point of the former, the route lies over sand for a few days, and then occurs a tract of stiff red earth, and the utter absence of water for eight or ten days. This does not extend far to the west, for in that direction it is bounded by a sandy waste.

The central part of the Desert seems to be considerably more mountainous than the eastern or western portions of it. Between Algiers and Twât is an uninhabitable desert of sand without water, separated by a hilly district from another similarly dreary waste between Algeria and Ghadamis. The country which lies between Twât and Ghat is all hilly, but its particular topography is quite unknown, on account of the deadly enmity which we shall afterwards have occasion to notice as existing between the populations whose territories it separates, and which renders its exploration perilous in the extreme. The Targhee country abounds in hills and stony plains. Mr Richardson describes himself as travelling six days southward from Ghadamis without meeting fifty yards of sand; the route lay over hard-baked earth and huge blocks of stone, but chiefly beds of very small pebbles. Afterwards he met sand in abundance—masses of it quite loose, and 400 feet high. Towards Ghat it was heap upon heap, pile upon pile, every succeeding feature of the landscape appearing more hideous than the former, and the whole presenting 'a mass of blank existence, having no apparent object but to terrify the hapless traveller, who, with his faithful camel, pursues his weary way through the waste.' The country about Ghat is intersected in every direction with dark gloomy mountains. Here, it is said, that spirits of the air live in harmonious alliance with the tribes of the Desert, in consequence of a kind of *Magna Charta*, a treaty offensive and defensive, made between them ages ago. The *jenoum* (demons or *genii*) who had chosen to build their palaces in these mountains, offered their friendship and protection to the sons of men, on condition of being allowed to remain unmolested, promising especially to endure their human allies with vision and tact, during the hours of darkness, to surprise and overcome their enemies. And the Targhee fathers alone of mortals vowed them eternal and inviolable friendship on these conditions, swearing that they never would employ Marabout, holy Koran, or any other means, to dislodge them from the black turret-shaped hills. The treaty has never been violated; the demons dwell unmolested in their lofty castles; and many an unfortunate traveller or hapless negro family witnesses the fearful efficacy of the powers which they have conferred upon the *Touarik*.

Standing out conspicuously among the private dwellings of the demons is an immense rock: this is their council-hall; and here, from thousands of miles round, do the spirits of the air meet to deliberate on the affairs of their social polity. Here, too, are their public treasures—caverns full of gold, silver, and diamonds—all, we presume, of a spiritual nature, like their possessors, or we doubt if they would remain inviolable. Nor must we omit to mention a rocking or logging-stone, about fifty feet high, and exceedingly like our own in Cornwall. It was the spot on which a wealthy Marabout of great sanctity met a violent death. The murderer, seized with remorse for his deed of blood, entreated the genii to cover up the body from sight, as he had not courage himself to bury it. They listened to his prayer, and detached this piece of rock from their great palace to form a sepulchral stone; and here it has rested, occasionally rocking, say the people, to this day. The murderer then begged that the genii would accept some of the spoil in token of his gratitude; but they refused to touch the bloodstained gold, and pelted the wretch to death.

The topography of Fezzan presents a mixture of mountains and plains: and the soil is sterile enough except in the oases, which are said to be about one hundred in number. The most remarkable feature of this part of Sahara is the chain which separates it from Tripoli, and which runs from east-south-east to west-north-west, like the coast from Benghazi to Khabs. The whole country south of Fezzan consists likewise of hills and stony plains, sandy tracts being met with only here and there. A long range of black basaltic mountains forms the western boundary of the Tiboo country or Libyan Desert, where the continent shelves down towards the Mediterranean in a series of sandy or gravelly terraces, divided by low rocky ridges. This shelving country is cut transversely by the deep furrow in which is the long line of oases to which we have adverted as of ancient classic celebrity. A hideous flinty plain, several days' journey across, lies between it and the parallel valley of the Nile, which forms the eastern boundary of the great Deserts of Africa.

It appears thus, that insulated hills, or groups of them, generally of naked sandstone or granite, are by no means uncommon throughout the Sahara, where they appear like islands in the vast expanse. The stony plains also are somewhat elevated, as are those of stiff clay; the sandy tracts lie lower; and deeper still are the ravines and basins which constitute the most peculiar and interesting features of the Saharian landscape. The Desert boasts of no permanent river; but the winter rains give rise to temporary streams, which fill these hollows, and then sink to some unknown depth in the sand, or evaporate in the scorching heat of the summer sun. *Quad* or *Wady* is the term used to designate the channels of these temporary streams, which sometimes acquire, on account of the rapidity of their fall, a velocity which uproots trees and spreads desolation everywhere in its course. This is especially the case in the northern oases. At that of Mزاب, for instance, when the sky darkens towards the north, a number of horsemen set out in that direction, and station themselves at regular distances of the highest points of land. If the torrent appears, the farthest of them fires a gun; the telegraphic signal is repeated from post to post, and reaches the town in a few minutes. The inhabitants run immediately to the gardens, to awake the men who may be sleeping there,

and in haste they carry away every object of value that might become the prey of the devastating flood. Presently a dreadful noise announces the irruption of the torrent; the soil of the gardens disappears beneath the water; and the Saharian city seems transported, as if by magic, to the banks of a broad and rapid river, whence arise, like little isles of verdure, innumerable heads of palm-trees—an ephemeral ornament, which disappears in a few days.

Some of the basins are very extensive, and contain beds of salt considerable enough to be worked: such are the famous Trazza, Toudeni, and Tishet. In latitude, about 34 degrees north, and nearly on the meridian of London, are two large basins, called Shott, situated in a frightful desert, and divided from each other by an isthmus from 25 to 30 miles broad. They present a very singular formation, which would open an interesting field of geological inquiry. The eastern basin is about 120 miles long, and the western about 85, the mean breadth of each being about 6 miles. These basins exhibit a fall of the earth from 35 to 60 feet deep, nearly vertical, and so perfectly clean and smooth that they appear as if wrought out with a chisel. Dr Jacquot, who examined them minutely in 1847, asserts that they could not have been produced by any gradual action of water; that they are evidently *cratères de soulèvement*, and bear the appearance of having been torn open by the convulsion which upheaved the Atlas, their greater axis being parallel to that chain, like most of the accidents of the Northern Sahara. Several pluvial streams flow into these basins, and various small plants are found in them; but they become perfectly dry in summer. The local tradition of the origin of the Shott is, that at a remote period of antiquity, the Saharians, jealous of the fine sheet of water which forms the boundary of the Tell, resolved to have a sea of their own. With immense labour they excavated the two basins, and then the question was how to get them filled. A numerous caravan was equipped for the shores of the Mediterranean, with skins to bring water for their artificial sea. Allah, incensed at their presumptuous enterprise, destroyed them all by the way, and let loose a fearful tempest on the splendid city which they had built for a port on the sea which they contemplated. The ravages of time have effaced the last vestiges of the unfortunate city; but the basins of the Shott, long, dreary, sterile craters, remain a witness of the power of God and the vanity of man. If this explanation of the origin of the Shott affords little satisfaction to the geologist, it is fraught with interest to the lover of Scripture truth, who finds here, as in almost every country under heaven, a traditional record, however imperfect, of the events which took place at Babel.

Many of the depressions of the Sahara, whether in the form of wads or basins, enjoy a constant supply of water by means of natural or artificial wells, and have consequently been planted and inhabited: these are the oases of the Desert; not to the eye of the geologist like islands which rise above the surrounding expanse, but hollows affording to animal and vegetable life not only the vivifying moisture, but the no less needful shelter from the storms of the Desert. These verdant spots, which are often hundreds of miles apart, present considerable encouragement to the labours of the husbandman, and are in general most favourable to the cultivation

of the date-palm and other fruit trees. Onions, with various herbs and vegetables, also find a congenial soil; but grain does not appear to yield abundant crops. The wide wastes abroad furnish for the most part a scanty supply of coarse grass and small shrubs, serving as pasturage for the cattle of many a nomade tribe; but there are also extensive tracts where not a morsel of verdure is to be seen. Nothing can exceed the desolation of these regions: where there is no vegetable there can of course be no animal life; day after day the traveller wends his way without seeing bird, beast, or insect; no sound, no stir, breaks the dreadful silence; the dry heated air is like the breath of a furnace, and the setting sun like a volcanic fire. The desert plains that are much exposed to storms present an equally terrific scene, but somewhat different: the sand is blown into clouds that fill the atmosphere, darken the sun at noon-day, and almost suffocate the traveller. Now the whirlwinds form it into columns; and one of the most magnificent and appalling sights in nature is presented. 'In the vast expanse of desert,' says Bruce, 'we saw towards the north a number of prodigious pillars of sand at various distances, sometimes moving with great velocity, sometimes stalking on, with majestic slowness. At intervals we thought they were coming in a very few minutes to overwhelm us, and small quantities of sand did actually reach us more than once: again they would retreat so as to be almost out of sight, their tops reaching to the very clouds; then the summits often separated from the bodies, and these once disjoined, dispersed in air, and did not appear more; sometimes they were broken in the middle, as if struck with large cannon-shot. At noon they began to advance with considerable swiftness upon us, the wind being very strong at north. Eleven ranged alongside of us about the distance of three miles; the greatest diameter of the largest appeared to me as if it would measure ten feet. They retired from us with a wind at south-east, leaving an impression on my mind to which I can give no name, though surely one ingredient in it was fear, with a considerable deal of wonder and astonishment. It was in vain to think of fleeing; the swiftest horse could be of no use to carry us out of the danger, and the full conviction of this rivetted me to the spot.' Another traveller had an opportunity of seeing one of these pillars crossing the River Gambia from the Great Desert. 'It passed,' he says, 'within eighteen or twenty fathoms of the stern of the vessel, and seemed to be about 250 feet in height; its heat was sensibly felt at the distance of 100 feet, and it left a strong smell, more like that of saltpetre than sulphur, which remained a long time.'

Downs or sandhills form a prominent and remarkable feature of the Saharian landscape. They are rounded elevations, smooth as the cupola of polished marble, sterile as the rock of naked granite, and of so uniform a colour that they never appear to blend or confuse with surrounding objects. During the day, they wear the sombre hue of a landscape at sunset; by moonlight one would think them phosphorescent, from the brightness of the light sparkling in the bosom of the shadows. In some situations, the sandhills seem to be at the mercy of the wind, travelling at its bidding, and settling here or there to rise and wander forth again. Others seem to have found a permanent resting-place; and this is generally, if not always, in the shelter of a mountain-chain. Yet strange

to say, the sands are not, in such a case, heaped against the mountain sides, nor yet gathered into the hollows; they form a distinct, secondary chain of themselves, corresponding in form and direction with the primary, and separated from it by a broad valley, which is covered here with pebbles, there with sand; now with herbage, and again with barrenness itself.

The camel, the sheep, and the goat, are the domestic animals of the Sahara; few wild ones of any kind are to be found in the open Desert. When the natives are asked about the lions which the learned of Europe have given them for companions, they answer with imperturbable gravity, that 'perhaps in Christian countries there are lions which browse on herbage and drink the air, but in Africa they require running water and living flesh; consequently they never appear in the Sahara.' The wooded mountains are infested with them, but they have no inducement to descend into the sandy plains. The only formidable creatures are of the viper and scorpion kinds. Few else except timid and inoffensive species are natural guests here: the principal are the gazelle, the ostrich, the antelope, and the wild ass; but even these seem to venture little beyond the skirts of the Desert, except in the neighbourhood of mountains. The chameleon is common in the gardens of the central oases, where it is allowed to roam unmolested, being rather a favourite than otherwise. It is described as a most unsightly creature, changing its colour continually, but never exhibiting a handsome one. Its hues are dunish red or yellow, and sometimes a blackish brown; it is often varied with spots or stripes, but frequently without either. The construction of the eyes is remarkable: they seem to turn on a swivel, and are directed every way in a moment. The Saharian traveller has frequent occasion to admire the facility with which the camel turns its head and neck completely round, and looks north, south, east, and west, without pausing, or even slackening its pace for an instant; but he ceases to wonder if he has ever observed the rapidity of the chameleon's eye.

Another singular creature is the thob (perhaps *Monitor pulchra*), a large species of lizard not unlike a miniature alligator. It is sometimes twenty inches long, and ten round the thickest part of the body. It is covered with scaly mail, shining, and of a dark-gray colour, and has a tail four inches long, composed of a series of broad, thick, and sharp bones. The head is large and tortoise-shaped, the mouth small. It has four feet or rather hands, on which it runs awkwardly enough, owing apparently to its bulky tail. It hides in the dry sandy holes of the Desert, and the Arabs say that a single drop of water kills it. The traveller is glad to make a meal of the thob; and, prejudice apart, it is palatable food, not unlike the kid of the goat.

Nor must we omit to mention the ouadad, or waden, an animal described as between the goat and bullock in appearance. It is hunted in the sands of the Central Desert, and its flavour is said to resemble that of coarse venison. Three or four of these animals were sent to the Royal Zoological Gardens of London a few years ago.

The geology of the Desert is still involved in much obscurity. Humboldt proposes the question: 'Has this once been a region of arable land whose soil and plants have been swept away by some extraordinary revolution? Or is the reason of its nakedness that the germs of vegetable life

have not yet been fully and generally developed?' The most recent opinion seems to be, that the latter is the true state of the case; that this expanse of desert has risen from the bosom of the ocean at a very recent period, subsequent even to the throes which gave birth to the regions of the Atlas and Soudan. The present aspect of its surface is exactly that which it must have had while as yet submarine. The rocks hid beneath the ocean, and continually swept by its waters, must tend to become even; the loose materials of the mountains being detached and precipitated into the hollows till the culminating points present only so many masses of smooth and solid rock. Travellers have remarked this feature of the desert mountains as contrasted with those of Morocco: the latter exhibit wooded craggy heights, bared by winds, bitten by frosts, and hoary with age, though they are considered to have appeared after the formation of the tertiary strata—that is, while the crust of the earth was in its present state of development; but the hills of the Sahara are quite naked, dull, and dead, smooth as velvet, and exhibiting a black or purple hue of painful uniformity. This is Mr Richardson's report of those he met in his route south from Tripoli; and he mentions what is yet more important, their disposition north and south, which, if a general rule of distribution, would go far to decide that they were not coeval with the Atlas range. The immense quantities of sea-shells found not only in the limestone-rocks, but in the sandy and pebbly plains, and the salt which prevails everywhere, seem to favour the view that the sea has, till very lately, covered the whole of the space now under consideration. Diodorus Siculus mentions a lake of Hesperides in the interior of Africa, which, according to ancient tradition, was suddenly dried up by a fearful convulsion of the earth; and Malte Brun conjectures that this lake could be no other than that which once covered the Sahara. If we were to accept this hypothesis, we could at once find the long lost isle of Atlantides, without supposing the submergence of a country whose summits only remain in the Canaries and Azores. The region of the Atlas Mountains, including the fertile shores of the Mediterranean, still wear the appearance of a great island, washed on the south by the Sahara-belama (sea without water), whose sands reach from the ocean to the Gulf of Syrtis. If, however, the Atlantides of Plato must be placed in the Atlantic, and beyond the Pillars of Hercules, might not such a convulsion as submerged this country have been sufficient to upheave the Sahara?

II.

Inhabitants of the Desert—Berbers and Arabs—their Habits, Occupations, and Migrations. The Targhee and his Meharce—The Tibboos—The Maraboot Tribes.

Many portions of this singular region are, as we have seen, uninhabited and uninhabitable; but by far the greater part is scantily peopled by various tribes of two distinct nations. The aboriginal race is that which has been denominated the Atlas Family, said to have arisen from the mixture of the two primitive nations which occupied Northern Africa in the earliest ages—that is to say, the Libyans in the East, and the Getulians in the West. The Romans, and after them the Vandals, mingled themselves

with this race; and in the Berber branch it now presents various elements which the succession of generations and multiplicity of crosses have combined into a homogeneous people. The other nation is the Arabs, who are obviously invaders. Negroes are seldom to be met with in the Desert except as slaves or occasional immigrants; they are not found as a population attached to the soil; and Jews have crept all round its borders, but seem never to have ventured into its mysterious depths.

The Arab invasion of the Sahara seems to have commenced in the West by Morocco or the shores of the Atlantic, and to have advanced eastward to the interior. All along the coast from the Senegal to the frontiers of Morocco, and thence to the neighbourhood of the Joliba,* they seem to have utterly expelled the ancient possessors of the soil. Proceeding eastward, we find them mingled with Berbers, but occupying a distinct social position, in the tract which lies between the route from Harib to Timbuctoo, and that from Agabli to the same place. Still farther in the same direction, some are found in the country about Mabrook; but beyond this the nomades of the Arab race disappear, and are not met with again till we reach Darfoor. In all the towns, however—such as Agades, Kashna, &c.—there are resident Arabs. A very powerful tribe of them, called Shanbah, are the principal possessors of some of the oases of Twât, and traverse the desert wastes north and west of these.†

Of the above-mentioned tribes, those about the north and east banks of the Senegal occupy certain limited districts, having no occasion to change their locality; the most numerous of them is the Ouled-Amer,‡ whose territory is very considerable. It is otherwise with those who live farther north: they are subject to annual migrations, from the failure of pasture and water during the summer months. The great tribe of the Ouled-Deleim, who in winter occupy the country round Hoden, migrate in summer to the neighbourhood of Noon, where they possess wells and oases. A great number both of Arab and Berber tribes of this part of the Sahara pass the summer in the empire of Morocco: such are the Harib, who inhabit the town so called, and at the approach of winter disperse southward to a distance of a hundred miles or more. So far are these nomades from wandering at hap-hazard, as many suppose, with their flocks and herds, and sojourning for a time wherever they chance to meet with herbage and water, each tribe has its own region of pasturage when the rains of winter have spread a scanty verdure on the Desert, and its retreat in some well-watered spot during the parching heat of the summer months.

Such are the pastoral tribes of the West, and the same character seems to apply throughout the Desert to those who follow similar avocations. But the Shanbah above mentioned, and several other tribes having their location about the commercial routes which connect Morocco with Twât, and Twât with Tunis and Timbuctoo, seem to combine the mercantile and piratical character in the highest perfection, conducting and defending the caravans that engage their protection by paying a sufficiently heavy tribute for passing through their territories, while they plunder all others without

* The Niger.

† In some maps this district is marked as the residence of the Twâts, which seems to be another designation for the Shanbah, but less correct.

‡ Often corrupted into Ludamar.

mercy. Their great rivals in both these branches of industry are the T'ouarik, whose singular character and habits will merit a more particular description when we come to notice the more central tribes.

Throughout the whole extent of the Northern Sahara, where the oases are numerous, we find the Berber and Arab races united by ties of mutual dependence; yet not more distinct in feature and language than in their social position and employment. The Arabs, true to their vagabond instincts, traverse the open country with flocks and herds; undertake the transport of merchandise; engage in the convoy or pillage of caravans; and carry on, in short, all that may be termed the external relations of the community. They are the more numerous and wealthy, of course also the dominant people. In the palmy days of the Hamian-garabas, a single individual has been known to possess 2000 camels, and four times as many sheep. The Berbers, on the other hand, are the sedentary population: they inhabit the oases, where the men employ themselves in cultivating the gardens, and the women conduct the manufactures. In their continual wanderings, the nomades cannot carry all their property with them, and the ksour* become the depositories of their goods. Many of them, besides, have purchased land in the oases, and are obliged to employ the sedentary inhabitants to cultivate it. On the other hand, as soon as the modest accumulations of the ksourian permit, he buys a sheep, which he confides to the pastoral care of the nomade tribe. Thus the two nations, who seem to have nothing in common but their religion, and between whom there is anything but cordiality of feeling, are closely bound together by a reciprocity of interest, and peace is the necessary result.

The French, who have been labouring these twenty years to subjugate these people, say that the Arab submits, revolts, and submits again; again to commence the same alternation of rebellion and obedience, according to the impulse he receives from his own interest or caprice, or from the instigation of the Marabouts; the Berber loves his independence, but when once he has been made to feel a mightier power, he respects the oath that he has sworn. The Arab escapes the punishment of his perfidy by plunging with his tents and flocks into deserts where no army can follow; but the Berber is confined to his ksar and his gardens.

Dr Jacquot describes the first oasis he saw in Sahara as 'a little green corner, fresh and shady, cheered with the song of birds, and enlivened by the murmur of waters. The dates waved their elegant plumes high in the air; the pomegranates and fig-trees crowded between the columns of the palms; the wheat and barley clothed the soil with verdure; the water flowed in every direction, and the humid vapours vivified the foliage. One could not help trembling for the little spot, it seemed such a feeble thing in the immensity of the Desert, surrounded by desolate plains, and menaced by moving sandhills.'

This little oasis is about five-eighths of an English mile in length, and a little less in breadth. It occupies the bottom of a narrow ravine, which shelters it in almost every direction. It is enclosed by a mud-wall from 7 to 10 feet high, and from 8 to 12 inches thick, flanked with about five-

* Ksar is the village of an oasis; Ksour is the plural; and Ksourian the inhabitant.

and-twenty round towers, generally built of stone. These are the sentry-boxes, on the flat roofs of which are stationed nightly guards to protect the gardens from pillage. The gardens of the oasis lie against the general wall, and are divided into a number of small enclosures, each of which is a separate property. Next to the gardens, towards the centre, are the fields of corn, barley, and onions, likewise divided into small squares, which are watered and tended like our favourite flower-beds, and through the midst runs the Wady, which flows from four springs a little above the ksar.

Such an oasis does not at all correspond with our preconceived European notions of these islands of the sandy ocean. It is not the immense wild garden, which supplies in a day what will support its inhabitants for a year; it is not a spot where numerous species of fruits and flowers crowd and mingle in luxuriant confusion; it is not, in short, the wild primitive oasis. It is niggardly nature, cultivated even to torture by human industry; it is wise, modest, economical husbandry, which rejects the ostentation of useless foliage, and the empty show of unproductive blossoms; which refuses space for a single tree or flower that is merely ornamental, and makes room for those only which yield food for the sustenance of human life. The ksar is built of stone, and presents the appearance of a single building, or rather a mass of heavy masonry, perforated here and there with a small window, and diversified with jutting and retiring angles. The flat roofs rise above each other in irregular terraces, and none of the streets are open to the exterior; they are closed up with masonry, affording no entrance but by four narrow doors. In fact, there is no such thing as we should call a street, none being open to the heavens above; they are narrow, dark, often uneven passages winding under the buildings. The main object in the construction seems to have been to pile the houses compactly together, avoiding exterior openings, which might serve for the admission of an enemy, and crowding as many human beings as possible into a given space. About 300 men, women, and children, a lymphatic, sickly, scrofulous generation, are huddled together in this ksar.

Some oases are considerably larger than the one we have described, and some of the buildings are much more extensive; but this general plan, both as to the gardens and the dwellings, seems to obtain throughout the northern and western portions of Sahara, where the Berber race are in general the architects and husbandmen.

The most interesting structures, however, are not the ksour, but the marabets, or sepulchral chapels, which stand outside the walls. These are generally square, and surmounted by a cupola, the whole being of stone or brickwork, executed by artisans brought from Morocco for the express purpose. Sometimes the principal cupola is flanked by four secondary ones, the interior presenting a court, surrounded by a gallery, supported by Moorish arcades. The ostrich egg, instead of a stone or metal ball, crowns the summit of these pyramids. The ksourians choose to reserve all the luxury and magnificence of their architecture to adorn the little temples around which they excavate their last resting-places. These are not, like the habitations of the living, subject to the ravages of invading foes, for they are universally held sacred; and the conqueror, covered with blood, approaches here with reverence, and prostrates himself in lowly worship. Life is so ephemeral when the elements of nature and the arms

of the enemy continually threaten its existence, that the ksourian cares not to lavish his wealth on the dwelling in which he may remain but for a day : he reserves all his solicitude for that which will shelter him for ever from the storms of life.

The camel and the date are to the inhabitants of the African deserts what the reindeer and the lichen are to those of the polar regions ; and while many of the less enterprising nomades live at least two-thirds of the year on camels' milk, so in the oases dates are the staple article of food, and aged ksourians may be found who have never tasted bread.

The tree which produces this valuable fruit is the palm which gives so peculiar and imposing an aspect to the verdant spots of the Desert. Its straight and lofty trunk, fifty, sixty, or even one hundred feet high, is crowned by a tuft of large radiating leaves or fronds. The calyx has six divisions, and the fruit is a drupe, considerably larger than an acorn ; of a full red colour when ripe, and enclosing a hard kernel, from which it is easily separated. It is pulpy, firm, esculent, and sweet, with slight astringency. The trees are raised from shoots, which arrive at maturity in thirty years, and continue in full bearing for seventy longer, producing yearly fifteen or twenty clusters, which may weigh from fifteen to twenty pounds each.

When any one wishes to make a date plantation, or to form a garden, as the natives say, he summons the neighbouring proprietors to his assistance, and thus accomplishes his work with economy as well as dispatch ; for their services cost him nothing but the obligation to return the like when demanded : the only auxiliaries who receive wages are those who are not proprietors. The whole of the sand requires to be removed to the depth of several feet, in order that the roots may reach the water ; besides, a trench is dug round every stem at a proper distance, and into this, when necessary, water is poured, in order that, sinking through the soil, it may effectually reach those fibres that chiefly require it. This irrigation is generally committed to the women and children by those who have no slaves ; and the precious fluid is carried in skins of animals, or baskets of halfa, plaited so closely as to be water-tight. In most cases canals are cut in every direction, communicating with the springs which supply the oasis ; and where restriction is necessary, each proprietor pays so much an hour for the flow of a stream into his garden. In some of the oases, each has the prescriptive right of an hour or two, according to the title-deeds of his estate. The time is measured by a rude chronometer held by the officer who opens and shuts the conduit.

The mode of preserving dates is very simple. They are merely pressed closely together in large woollen bags, and thus form compact masses, which keep for several years. Sometimes a large white worm is engendered in these, but it seems to occasion no disgust. Every species of domestic animal in the Desert, even dogs and horses, can make a meal of dates. But this fruit, however valuable, is, as an aliment, very inferior to the cereals ; it is capable of less variety of culinary preparation, and through time it produces painful satiety and fatigue of the digestive organs. Where little else is to be had, the ksourian employs various devices to alleviate the monotony of his fare : he cooks his dates with oil or butter, or mingles them with onions and other vegetables, which are usually cultivated in the

date gardens. But the favourite ragout, especially in the north, consists of locusts boiled in salt and water. At certain seasons these creatures traverse the air in dense clouds, and fall in numbers to the earth; they are collected with care, and those which are not used immediately, are dried and reduced to powder, which is kept for times of scarcity.

The sap of the date-palm furnishes a highly-esteemed beverage, called *lagmi*. To obtain this, it is necessary to cut off the higher branches, and bore a lateral hole in the stem thus tinsured; into this the end of a reed is introduced, and the liquor flows through it rapidly, especially in the morning and evening. It is said that a single tree will yield fourteen or fifteen quarts daily for two successive years, but it would perish in the third if the bleeding were continued. The taste of the *lagmi* is not unlike sweet barley-water, and by fermentation it may be transformed into an excellent drink resembling cider.

The wood of the palm-tree is used for building: the trunk, sawn in two along the grain, furnishes the joists and rafters; the palm or jerid is placed on these to form the lathing, and sometimes above all is placed a layer of *sāaf* or palm-leaf. All articles of carpentry are made of this wood, and where it is very abundant it is even used for fuel; but more generally the latter consists of the withered bushes which cover the sandy plains, where they are gathered by the nomade tribes of the locality, and carried to the oases.

Every part of this valuable tree is turned to account. The fibrous network which surrounds the branches where they attach themselves to the stem is twisted into strong tough ropes, with which the camels are tethered; the branches, besides the use we have mentioned, are made into baskets of various kinds, and the stones are pounded, and used to fatten sheep and camels. Thus the date-palm appears to be in Africa what the cocoa-nut is in the islands of the Pacific: the native derives from it food, drink, habitation, and almost every utensil he employs. In those places where money is scarce, a certain measure of dates, called a *hatia*, serves as a kind of currency; it is at least a usual term of comparison by which the value of various articles of merchandise is estimated, even though the measure varies in different places, and the price of dates rises and falls with the seasons.

The woollen fabrics, which, with the cultivation of dates, forms the principal object of Saharian industry, are chiefly burnouses, haïks, and gandouras. The burnoose is the Arab cloak, which is furnished with a hood; the haïk is a long rectangular piece of cloth, which the men wrap round their heads, allowing the ends to fall down over the body, while the women use it as a shawl, covering the head and face with it, especially in cold weather. The *gandoura* is a kind of blouse, which reaches down to the feet. Throughout the Desert the manufacture of these fabrics is devolved entirely on the females, the men considering it enough if they attend, and that but partially, to the husbandry; the produce of the two occupations proves in the market of about equal value; and it is certain that the merit of a wife in the Sahara is estimated by her dexterity in weaving rather than by her personal charms. The northern oases produce the finest goods; but in every part of the Desert the women make some attempt at manufacturing: even those of the nomade tribes weave the coarse stuff which forms their tents and the sacks for loading their camels. The material used is a mixture, variously propor-

tioned, of the hair of camels and goats; the former raises the price, as it is considered more impervious to rain. The colour of the tents is that by which the great nomade tribes, when encamped, distinguish each other from afar, the darkest being the most aristocratic.

The Arab dress is used both by nomades and ksourians. They shave the head, preserving only the lock of which the Angel of Death is to lay hold and carry them up to paradise. This religious belief has set a peculiar stamp on all the nations of Islamism; and if the disciple of Mohammed makes a point of decapitating his already lifeless foe, it is not for the sake of committing a wanton outrage on the corpse, but in order to make him feel, even in another world, the weight of his vengeance; for a headless body is doomed to rot on the ground, and the soul that animated it to wander for ever far from the happy gardens promised in the Koran as the eternal residence of the faithful.

A white woollen haïk, a kind of frock without sleeves, Morocco slippers, and a silk girdle, compose the dress of the wealthier female Saharians. Necklaces, bracelets, and rings, complete the toilet of a woman of quality, who besides stains her eyelashes black, and gives a yellow colour to her nails, the palms of her hands, and the instep of her foot, with a decoction of *lansonia inermis*. Tattooing, the indelible and economical adornment both of rich and poor, consists only of small and scattered designs—the Saharian population being in this respect far behind the great artists of New Zealand. They go unveiled, and seem under less restriction than is usual in most other communities of Islamism. Polygamy is freely indulged within the limits prescribed by the Koran.

Indolence seems to be the besetting sin of all the tribes of the Sahara: when not travelling, they will sleep in the open air twenty hours out of the twenty-four; yet when excited by any serious occurrence or important interest, they are capable of acting with considerable energy, and sustaining great fatigue. On the whole, however, they seem better adapted for patient toil and endurance than for vigorous and enterprising activity. Pride and ostentation are distinguishing features of their character; and on the other hand are the patriarchal virtues of reverence for parents, obedience to all constituted authority, and cordial hospitality towards strangers. That, however, which strikes a stranger perhaps most of all, is their unparalleled resignation to what they believe to be the divine will; that 'it is decreed,' seems to reconcile them to the severest sufferings, and not a murmur escapes from their lips. Nor must we omit to mention the fertile imagination, of which the Arab has lost nothing by being translated from the deserts of Asia to those of Africa: every spot has its legend, every rock its marvellous tale; a good storyteller is welcomed and feasted under every tent, where the family, squatting in a circle, listen with avidity to tales, in which the Deity is continually represented as revealing himself to man by miraculous interferences.

Within the last few years considerable light has been thrown on the social condition of the northern tribes, and interesting particulars have been collected respecting their periodical migrations. The nomades pass the winter and spring in the open Desert, where, during this part of the year, they find both water and vegetation; but they sojourn only three or four days in one spot, and strike their tents as soon as the pasture is con-

sumed. Towards the end of spring they visit the oases where their goods are deposited, load their camels with dates and woollen cloth, and proceed northward, taking with them the whole nomade city, including women, children, dogs, flocks, and tents. Now, the waters of Sahara are drying up, and the plants are withering, while in the Tell the grain is ripening. They arrive in the season of harvest, when the price of corn is low, and the juncture is doubly favourable for abandoning the now sterile Sahara, and finding the markets of the Tell overflowing with cereals. Here, then, they spend the summer months in the activities of commerce, exchanging their dates and woollen goods for barley, raw wool, sheep, and butter. Now also, the lands of the Tell are vacant, the harvest having been gathered in; and the soil is improved rather than injured by their cattle, which are permitted freely to browse upon it. The close of summer is the signal for departure—a summons hailed with joy, as announcing the time for returning to their native country. Again loading their camels and striking their tents, the moving cities turn towards the south, and make their way into the Desert by short journeys as they came. They arrive at the oases just when the dates are ripe—that is, toward the end of October; a month is required, even with their assistance, to gather and house them; another is spent in exchanging their corn, barley, raw wool, &c. for the dates which have been gathered, and the woollen fabrics which have been produced during the year by female industry. These are now carefully deposited in the magazines, and the nomade tribes retire from the oases, conducting their flocks from pasture to pasture in the open country, till the return of summer demands a repetition of the same journeyings and the same labours. During the date-harvest, a load of corn in the Desert is worth two of dates; while in the Tell, at the corn-harvest, a load of dates is worth two of grain. This general rule is subject to little variation; so that if a grower conducts his traffic without any intermediate agent, he realises a profit of three hundred per cent.

The extensive tract of country which lies between the line from Agabli to Timbuctoo, and that from Gadamis to Kashna, is the principal though not the only range of the Touarik.* They constitute not a tribe merely, but a great nation, divided into several sections, of which each has its sultan and subordinate chiefs. It is impossible to form any correct estimate of their numbers. A large proportion are pastoral tribes, feeding their flocks in the desert wastes; the rest are engaged in commerce and piracy. Several large towns and numerous villages along the frontiers of Soudan and in the Hogger Mountains serve them as dépôts. The Touarik are a white-skinned race, and supposed to be a branch of the Atlas family, older and purer than the Berber: their language is a dialect of that spoken by the Berbers of the Tell and the northern oases, but characterised by a roughness which has led to its being called by Europeans the 'German of the Desert:' it seems to approximate most to the language of the Gouanches, the aborigines of the Canary Islands.

Placed between the white race and the black, the Touarik are the terror of both, and appear now with savage ferocity to avenge themselves on the descendants of those who drove their fathers into the Deserts. That

* The singular is Targhee.

section of them which is found along the borders of Soudan is said to be in the highest degree sanguinary and faithless. To ambush in the neighbourhood of the little towns inhabited by negroes—to rush upon them at dead of night—to seize them, throw them on their meharees, and fly with the swiftness of the wind—such is the principal branch of industry pursued by these formidable robbers. When they have formed a sufficient collection of hapless victims, they repair to the market of Ghat or Ghadamis, and sell them to the merchants of the north who frequent those towns. Sometimes, after having delivered to the purchasers all that they obtained in the 'razia,' as negro-hunting or stealing is called, they set out again, waylay the caravan of their customers, and bear away the slaves whom they have so recently sold. The merchants may, if they please, return to the market, purchase them a second time, and take care to hire a strong enough escort before undertaking the journey again.

Along the route from Demergon and Kashna to Ghadamis, the various Touarik act as convoys to merchant-caravans; but in every other direction, and especially on the frequented lines between Timbuctoo and the oases of Twât, they plunder without mercy. Though they wander through every part of Central Africa and the Desert, none of them can be prevailed on to visit the coast; and the inhabitants of Morocco, Algeria, and Tripoli, know them only by the report of the Arab tribes who traverse the northern portions of Sahara.

It is worth while here to remark the errors that attach to hearing only one side of a story, especially with reference to regions so imperfectly known. Our more recent English travellers, as Andney, Clapperton, and Richardson, having entered the Desert by Tripoli, and pursued the route which the Touarik keep under their exclusive control, found them much less formidable than they had anticipated; but they speak of the Shanbah as banditti of the most ruthless and reckless character, who, having no stake like the Touarag in the commerce of the Desert, have been celebrated from time immemorial as the robbers and assassins of Sahara. 'To be a brigand,' says Mr Richardson, 'is with them a hereditary honour; and they are the dread of the people of Wad-reklah, as well as of foreign merchants and caravans. They have a well scooped out in the sandy regions where their tents are pitched; and here they live in horrid security, defying all law and authority, human and divine. Around them is an immensity of sandy wastes, and none dare pursue them into their dens. Horses would be useless, and it would require, says the Ghadamsee Rais, 200 men, with 400 camels, 800 water-skins, and provisions for two months, to make the least impression on them. Their numbers are recruited from various other Arab tribes, whose outlaws join their ranks.'

The French writers, on the other hand, represent the Shanbah, or Cha'ambi, whom it is their interest to conciliate, from their proximity to Algeria, as the most industrious and enterprising merchants of the Desert, and the Touarag as the parasites, the corsairs—in fact, the only redoubtable enemies to be feared in the sandy ocean. The truth is, that the Touarag and the Shanbah are neighbours, and at the same time deadly, irreconcilable, and national foes; the latter being pure Arabs, and the former the aboriginal race of the country. Generally, there remains a considerable space between them; but if the nomade tribes reach at the same time the

furthest limits of their respective territories, a collision is inevitable. Plunder is the main object of the Shanbah, and their preparations include means of transport as well as weapons of war. The principal objects of their desire are meharces and slaves, or if they can get nothing better, camels and sheep. Sometimes, however, they carry off nothing but the killed and wounded: such are the chances of war. Vengeance for these assaults, and a deep-settled abhorrence of the Shanbah tribe, seem to be the great excitements to warfare on the part of the chivalrous Touarag; and the recital of their adventures is carried by each party to their homes—the French nation receiving the Arab story, with embellishments, through their tributaries, while those who pass by Ghat and Ghadamis hear the other side.

In the Deserts of Africa, as well as in those of Asia, the hand of the Arab is against every man, and every man's hand against him; and it is to be feared that throughout the Sahara a stranger and an enemy, a merchant and a robber, are terms nearly synonymous: that hostile tribes seldom meet without collision; and that pillage is the unquestioned right of the victor. Yet in the Targhee towas theft is said to be quite unknown, except as occasionally practised by the tributaries or slaves. Fidelity and hospitality seem also to distinguish these rovers: those who commit themselves to their protection will be defended with the last drop of their blood, and nothing is so offensive to the high-minded Targhee as to be distrusted. The reader smiles, perhaps, at the very mention of chivalry, high-mindedness, and the demand of confidence in connection with the freebooters of the Sahara; but let him know that throughout the length and breadth of the Desert they carry the letters of the merchants unsealed, yet sacredly inviolable. If an inquisitive European asks to see them, he is peremptorily informed that it is *haram* (prohibited) to read these documents. We venture to inquire, what would the *haute-police* do with open letters, if such passed through the post-offices of La Belle France? Or nearer home, how have sealed ones been treated in England? Might not some of the ministers of our gracious Queen have passed a few months with advantage among the Touarag, taking lessons in honour and integrity?

Besides their revengeful and piratical habits, which are indeed legitimate causes of dread, the singularity of their appearance and manners combine to render the Touarag objects of terror throughout the Desert. They are tall, some of them even gigantic, and generally slender and nimble; hence the Arabs give them the appellation of *lath* or *beam*—beams which become transformed into living catapults when they are animated by the desire either of pillage or vengeance. While the Arab dress is used by all the other inhabitants of the Desert, the Touarag maintain a peculiar costume. It consists of wide pantaloons, and a variable number of vestments, in the form of loose gowns or blouses, with wide sleeves. These are made of a cotton cloth called *saie*, which is brought from the negro country; it is only a few inches broad, generally of different shades of blue, and variously striped. Whether in the town or tent, they generally wear at least three of these garments, the outermost of which is ornamented with rich embroidery in gold, forming irregular designs, and particularly heavy on the left breast and the right shoulder-blade. When they betake themselves to the open country, they add other two blouses of a dark blue colour, and the *haik* or *barracan*, which is a long woollen scarf, worn over the shoulders.

But the great distinguishing feature of the male Targhee dress is the litham; a thin piece of cloth wound round the head, and then covering the forehead, the eyes partially, and the mouth and chin. The stuff of which this is composed is varnished with gum, to prevent the adhesion of the sand: thus are the mouth and eyes defended from cutting winds and drifting sands, and the wearer can travel several days longer without feeling parched in the absence of water. The Touarag pluck out the beard, contrary to the usage of the Berbers and Arabs, among whom this is a sacred ornament. A huge spear is carried in the right hand, the dagger is fastened under the left arm, and the sword swings behind. We must not omit to mention, also, that a profusion of talismans are strung round the neck; and so great is the confidence attached to them, that similar charms are hung round their meharees, to preserve them from the mange, and even on the date-trees, to save them from blight.

'Though professing the Moslem faith,' say our French informants, 'the Touarag are not considered by any means very scrupulous in the performance of its duties.' It seems that those who live in or near the negro country mingle the idolatrous rites of Fetichism with the observances of the Koran; but the Arabs look upon the whole race as heretics, from the singularity of their language and costume, and especially from the fact that in the shape of their weapons and the designs of their ornaments they manifest a decided predilection for the form of the cross, so abhorrent to those Mussulmans that recognise in it the emblem of the Christian faith. The handle of the Targhee sabre and the front of the saddle take this shape, and the cross is the favourite pattern of the embroidery on his dress. It is doubtless with indignant reference to these departures from orthodoxy that the Arabs of Sahara denominate the Touarag the 'Christians of the Desert.' Yet our English travellers describe them as spiteful in their religious bigotry, if not scrupulous in their practice. Children scarcely two years old would run out of their dwellings, spitting and crying, 'Kafer! Kafer!'—(infidel!) The wonderful descriptions which these gentlemen gave of European arts, for the entertainment of the natives, were constantly answered by the remark—'Christians know everything but God.' As Mr Richardson sat one day in the open court of his house, about an hour and a half before sunset, during the great feast called Ramadan, a Targhee entered, and standing before him in an erect posture, with his long spear in the right hand, he stretched the left towards heaven, looked upwards, and addressed him in a solemn, measured tone: 'And—thou—Christian! thou—fastest—thus! Thy father—knoweth—not—God! Thou art a Kafer—he is a Kafer—and the fire will devour you both at last!'

The female Touarag are said to be 'fair as Christian women,' pretty, coquettish, and saucy. Their dress is very simple, consisting merely of a chemise and short-sleeved frock, with a haik. They wear bracelets, anklets, &c. of painted wood, if they cannot afford the precious metals; and round their necks are hung talismans, pieces of coral, and occasionally small mirrors. They go unveiled, and seem at perfect liberty; for here, again, the Targhee character differs from the Arab in the absence of that conjugal jealousy which marks the Mussulman of the East. The perfection of Targhee beauty is not *embonpoint*, like the Mooreesses and Negresses; but, as the Arabs say or sing, 'Slender as the bending rush, or taper lance of Yemen.'

Another point of civilisation in which this race are in advance of both the Moors and Arabs is, that spoons are in very general use among them. These are made of wood, and exceedingly neat—a negro manufacture, as we remarked of the cotton cloth.

Of all the tribes of Africa, the Touarag alone have an indigenous alphabet, and most of them read and write their own characters—not indeed on paper or parchment, but on the sand and the dark rocks with which their country abounds.

Their principal market is Ghat, and their capital Agades. The latter is a fine town, built like Tunis: it is the residence of the sultan of one section of the Touarag. The subordinate chiefs exercise much authority; and, on the whole, the government seems to be a kind of irregular oligarchy. That which renders travelling so dangerous here, as in every part of the Desert, is, that the stranger may place himself under the protection of a convoy at Agades, for example, but his way may be through the territory of a different or even a hostile tribe of the same nation; and he has no security in case of meeting with a stronger party belonging to it. Timbuctoo is the goal which the European adventurer generally wishes to attain; but the Touarag who command the route south from Ghadames will not undertake to protect him westward, because those who surround, and indeed blockade Timbuctoo, are not amenable to the government at Agades.

Aheer is another important oasis of the Touarag. Its houses, unlike those of the Berbers, are circular, and stand far asunder, so that they spread over a considerable space. They are built of small stones mixed with red earth; a dome of thatch forms the roofing; and as a security against the wind, each dwelling has four doors, one looking to each point of the compass. The wells are constantly supplied with water, and there are cisterns to receive that which falls from the clouds. This neighbourhood is the favourite soil of the senna-plant. Its flowers are yellow, the leaves very large, and, except at the edges, of a dark purple colour. Large quantities of it are sent northward, packed in sacks of palm-leaves, which require to be renewed at Ghat. The natives wonder what we do with so much medicine: they have no idea of the millions of European population; still less of the quantity and variety of eatables and drinkables with which we overload and disorder the digestive system. The people of the Sahara use very little physic; their principal demands on the healing art are occasioned by external injuries, for which burning, bleeding, and charms, are their favourite remedies. To these some add manipulation, and after a severe fall every muscle is stretched, rubbed, and coaxed, with the utmost assiduity.

In all his expeditions, whether honest or dishonest, the meharee is the inseparable companion of the Targhee. It seems to bear the same relation to the common camel that the racer does to the draught-horse; but of all animals it is perhaps that which, from the nature of the country it inhabits, and of the service it is doomed to perform, has been the least made an object of observation and study. The only country that agrees with it is the Central Desert: it cannot live either in the northern part of Africa or in the mountainous country of Nigritia. Even every part of the Desert does not seem to agree equally well with it; for the Shanbah and the Onmadi, though very covetous of these animals, rear few if any for them-

selves. Nature seems to have appropriated them to the special service of the Targhee: they are the affectionate companions of his roving life; the docile, intelligent, and disinterested instrument of his piracies. The servant and the master seem to have been cast in the same mould: the meharee is very tall, and from being of light and slender make, appears to stand considerably higher than the camel. His neck is remarkably long, his legs thin and delicate, and his bunch projects but little. His countenance, like that of the camel, is careless and imperturbable; but under this sorry aspect and seeming indolence, he conceals qualities which might almost make him the king of beasts—a fidelity and gentleness which is proof against every trial, a sagacity resembling that of the dog, and a swiftness far superior to that of the horse. Like his master, he has a physical organisation adapted to the region in which his lot is cast—in the midst of immense plains, between an arid soil and a burning sun, compelled to travel great distances in search of food, and continually exposed to the sultry breath of the south wind, he is endowed with singular powers of resistance to all these elements of destruction. Accustomed to the scanty herbage afforded by his native sands, the meharee does not seem to feel it any luxury to browse on the richer pastures of the coast; he is made for the Desert, sterile and ungracious as it is, and can live nowhere else. The Arabs attribute the danger of his expatriation to a poisonous little plant called *drias*, which does not grow in the Targhee country, but is so like a wholesome one on which the animal is accustomed to feed, that he crops it without perceiving the difference, and perishes the victim of his mistake. However this may be, meharees seldom appear even in the northern oases, except at Metili and Wad-reklah, whither they are occasionally brought by the Shanbah, who have purchased or stolen them from their natural masters.

As the transport of goods rarely demands great speed, the common camel is almost exclusively used for this purpose, the meharee being reserved for services requiring expedition. He renders valuable assistance to caravans which, when preparing to set out, generally despatch *avant-couriers*, mounted on swift coursers, to reconnoitre the route, and ascertain whether it is supplied with water, and whether beset with any danger. But it appears that the meharee cannot and does not make any companionship with the coast camel. If the two incidentally meet, both shew agitation and alarm; but the camel confesses its inferiority by scampering off as fast as possible. The natives divide their meharee or meharees into ten classes, according to their swiftness: the lowest comprehends those which can make about twenty-five of our miles in a day, and the highest those which clear eight or nine times that space. It is confidently asserted that a good meharee can travel seventy or eighty miles, day after day continuously; and that, in an extreme case, one of them made the journey from Ghadamis to Tripoli, a distance of above 260 of our miles, in one day; but the rider expired from exhaustion immediately on his arrival.

- * The mode of rearing this favourite animal is curious. As soon as he is born, he is plunged to the neck in fine shifting sand, lest his soft and slender limbs should be bent by supporting the weight of his body; and for fourteen days he is fed on a diet chiefly of butter and milk, the composition and quantity of which varies every day, according to established

and well-known rules. At the end of a month he is allowed to run; an iron ring is then passed through his nose, and his education commences. When well trained, the meharee displays remarkable sagacity. If his rider chooses to plant his spear in the ground in the midst of a rapid course, the animal, attentive to the slightest intimation of his wishes, turns round the weapon, to enable him to regain it, and resumes the course without slackening his pace for a moment. When the warrior falls in battle, the faithful charger stretches himself on the ground, as if inviting him again to mount his back. If he is able to do so, he bears him gently but swiftly from the scene of carnage; but if the Targhee remains silent and motionless, the meharee hastens to the town or douar * of his habitation, exhibiting the empty saddle to the bereaved family. The women now commence the death-dirge—the children set up piercing cries—the whole community is thrown into excitement and alarm, and the horizon is watched with anxious solicitude. Some spots appear—they increase—they approach; they are other meharees without their riders—mute but truthful messengers of sorrow, confirming the intelligence that the troop has been defeated, and the loved ones are no more. The animals seldom all return, however—the victors generally succeed in capturing some of them; and they bring a high price when exposed for sale. A good meharee cannot be had for less than 720 boujous (about £30 sterling), whereas a common camel costs about 50 (£3, 15s.) It is, therefore, among all the tribes except the Touarik, an unusual and aristocratic means of locomotion.

Eastward of the route between Fezzan and Bornoo commences a black population denominated Tibboos, and supposed to number 150,000. This is a native race, probably of great antiquity, and enumerated by geographers as one of the branches of the Atlas family. Though black, the style of their features is strikingly dissimilar to the negro. They are described as a gay, lively, thoughtless race, with all the African passion for the song and the dance, which last they practise with considerable grace. Their occupations are chiefly pastoral, and their principal subsistence is derived from the milk of their camels. Besides, they carry on a small traffic with the north in slaves, which they kidnap in the negro country; and with the south in the natron and salt, which their country produces in abundance. Bilma is their capital—a mean collection of mud hovels, but surrounded by lakes containing the purest salt. A predatory warfare is kept up between the Tibboos and their powerful neighbours the Touarik. In open fight the Tibboos have no chance; when invaded, they climb the rocks in the shelter of which their villages are always built, carrying with them whatever they can remove. The Touarik sweep away all that is left, and load their camels with the salt which is so valuable as an article of trade. In return, the Tibboos give considerable annoyance by frequent and stealthy incursions into the Targhee country.

A singular feature in the social character of the Tibboos is said to be the dominance of the female sex in the hut and the tent. The man may be the lord of creation in the open country, where, indeed, he passes two-thirds of his time, but at home he is knocked about at the pleasure of

* A village of tents.

his managing spouse. When a caravan for salt is coming from Abeer, the men turn out and betake themselves to the mountains with provision for a month, leaving the women to transact the business.

Throughout the Saharian Desert, an aristocracy seems to attach to the blood of the saints, and some of the Maraboot tribes are among the most wealthy and powerful to be met with. Such are the Shereefs, who, in 1516, overthrew the dynasty of Morocco, and placed on the throne one of their own sheiks, by whose family it is still occupied. By this tribe is conducted most of the commerce of Morocco eastward through the northern states, which they supply with their own and European manufactures; and also to Twât, where they command several oases. The Oulad-sidi-Sheiks are another venerable tribe, who claim descent from a favourite caliph of the Prophet; and who, by their numbers, nobility, wealth, and sanctity, exercise a powerful influence throughout the date country. In token of their aristocracy, they dwell under tents of black woollen fabric, surmounted with ostrich-plumes, of which the size varies according to the rank and fortune of each family. By this token they are distinguished from the vulgar population of the Algerine Sahara, which is the land of their habitation.

Still more remarkable for this incongruous union of the sacerdotal and mercantile professions are the inhabitants of Gadamis. To a religious scrupulosity that would tremble at a drop of prohibited medicine falling on their garments, they add a spirit of commerce which is arrested by no difficulty, and daunted by no peril. They plunge into the Desert, eager in pursuit of gain, even when it is known to be infested with cut-throats; 'it is decreed,' the moment of their death is registered in the book of fate, and no recklessness on their part can antedate the record. With scrupulous exactitude, and with apparent earnestness too, they pray five times daily while *en route*, the laws of the Koran allowing them to choose their own time under these circumstances; yet they make no scruple about buying and selling the unfortunate negro; and this traffic in human flesh is the most lucrative branch of their commerce. The elder men, who have retired from the activities of life, and indeed all the resident inhabitants of Gadamis, seem to pass their whole time in formal devotional exercises. Even the women here are admitted to have souls, and are carefully instructed in the Koran, besides being taught to repeat the usual prayers and traditionary legends.

Unhappily the Turks, having incurred considerable expense in establishing their sovereignty at Tripoli, cast their eyes on this spot as an El Dorado for the replenishment of their exhausted coffers. A pretext was found for levying a heavy tribute; and though the holy Maraboot city of the Desert had taken no part in the turmoils of the coast, and though the pacific character of its inhabitants might well have exempted them from interference, yet a Turkish garrison was placed within their walls, the women and children were stripped of their gold and silver ornaments, private dwellings were ransacked to meet the exorbitant demands of the Ottoman Porte, and the city, which had flourished for ages in the pursuit of its peaceful commerce, is now groaning under oppression, and threatened with utter ruin: the Turkish rule has fallen like the lightning's blast, to wither one of the fairest palms of the African Desert.

THE DESERTS OF AFRICA.

III.

The Commerce of the Desert—Various Modes of Travelling—Best Mode of Exploring these Regions.

Besides the traffic which we have had occasion to mention as carried on by some of the nomade tribes for the supply of their immediate wants, there is a regular and extensive system of commerce across the Sahara, by which the civilised states of Europe are brought into communication with the Negroland of Interior Africa. This commercial system is sufficiently complicated on account of the difficulties attending the transit, and the various and even hostile interests that are engaged in it. The productions of Europe cannot be transmitted, as is commonly imagined, into the populous regions of Central Africa by caravans equipped in Morocco, Algiers, Tunis, or Tripoli: the commerce of Sahara is by no means so simple a matter. For instance, a bale of goods from Tunis, destined for the south, is carried by native merchants to Khabs, the most southern oasis of the Tunisian Sahara. Here it is purchased by merchants from Ghadamis, who convey it to their own city, where it becomes associated with commodities from Tripoli, Algiers, and Egypt. It proceeds, generally after changing hands at Ghadames, by the great annual caravan to Ghat, and is there exchanged for the productions of Soudan. Now, under the care of the Touarik, it finds its way to the country of the blacks; but we have no certain details of their mode of doing business. This is the eastern route. Towards the west, the progress is somewhat similar. Goods from the various towns of Morocco, and Algeria are carried by native tribes to Tafilet, Metili, &c. They are poured into the market of El-Golea by the redoubtable Shanha, or the sacerdotal Shereefs. Thence, by the same tribes and the Ommadi, they are conveyed to their respective markets in the oases of Twât; but from Twât to Timbuctoo they must be in charge of the Khensafa, or the all-powerful Touarik. There are some few individuals who accompany their goods through all their wanderings; these are generally the merchants of Gadamis, who can travel the whole of the eastern route under Targhee protection; or the Shanbah, who may succeed in fighting their way on the western. The commerce presents different characters in these two directions. Tunis and Tripoli export chiefly objects of luxury from Europe—as silk, and other articles of mercery; pearls, cloves, cinnamon, perfumery, paper, cloth, &c. Morocco, on the other hand, furnishes objects of more immediate necessity—such as grain, sheep, and wool. Placed between the two, Algiers might partake of both, but the ravages of war have turned aside the caravans from her oases. The staple commodities brought back from Soudan are negro slaves, gold-dust, elephants' teeth, senna, ostrich-feathers, buffalo-hides, the blue cotton made in the negro country, gour-nuts for staining the teeth, &c. The two last articles do not reach the northern states, but are disposed of among the inhabitants of the Desert; and it is to be noted that the oases are places of consumption and production, as well as of exchange; they absorb a large portion of the merchandise, both of the north and south, on its way; while to the former they add salt and natrona, to the latter dates and fine woollen cloth.

Each considerable town of the Desert becomes periodically a sook or fair. An English traveller who witnessed that of Ghat four or five years ago, states the number of merchants who arrived from various parts to have been about 500; the camels 1050; the slaves 1000. The value of the slaves, elephants' teeth, and senna, which were the staple commodities from the south, was estimated at about £60,000, which would be doubled on their arrival at European markets. Besides these, there were ostrich-feathers, hides, utensils of Soudan manufacture used in the Sahara, and the dark blue calico which clothes half the inhabitants of the Desert. From Europe there were bracelets, beads, looking-glasses, razors, sword-blades, needles, paper, silks and cottons of gay colours; but everything of the poorest quality. During the sook the place was supplied with provisions by frequent caravans from the oases of Fezzan. Very little gold was to be seen. What does come this way is chiefly in the form of female ornaments, rudely fashioned, but of the purest material. These are tied up in filthy pieces of rag, and deposited, during their journeyings, in the bosom or turban of the merchant. But most of the gold which is found in the interior of Africa is carried either to Morocco or to the European factories on the west coast.

Most of the traffic of the Desert is effected by barter, and very little specie is used. That which is most circulated in the north is the money of Tunis, which is current as far as the oases of Twât and Fezzan. Further south there is some Spanish money transmitted through Morocco, and a few Turkish coins, which naturally find their way from Tripoli; but the latter are generally disliked. The reason alleged is, that God taught Christians to make money, because it is a thing accursed, though necessary in the present world; therefore Mussulmans ought not to engage in this work. In the future state, they say the faithful will have all good things to enjoy without money; whereas Christians will have melted coin poured down their throats as their torment for ever. Among the negro tribes a shell currency is used, known to us under the vulgar name of *cowries*. Every year the English pour into this country, by Guinea, nearly a hundred tons of cowries from Bengal, where they bear about one-tenth part of the value that they do in Soudan.

The means of travelling in this part of the world are utterly different from those which nature and civilisation have bestowed on Europe. The largest rivers are unnavigable at a few miles from their mouths; the highway and the canal, to say nothing of the railway, are things unknown, as are the vehicles of which they imply the use. The Arab roads in the north are mere tracks marked on the sod by the naked foot of man, and the tread of horse or mule. They are so narrow that two persons cannot walk on them abreast; consequently, if travellers or caravans meet, the one takes to the right and the other to the left, so that two tracks are formed; and the more any particular route is frequented, the more paths may be found, sometimes running parallel and sometimes crossing each other. If an Arab is turned out of his track for a time, he hastens back to it as soon as possible; hence the intersections. On the other hand, if a caravan is very large, it divides into two or three files, preserving equal distances; and hence the parallel paths. As the custom of proceeding in single file has produced these narrow tracks, so have these in turn perpetuated the

custom; in the Tell the natives may be seen travelling in single-file on roads forty-eight feet broad, constructed by their European conquerors, the traces of the national locomotion being thus impressed on the high-ways opened by civilisation.

But when we come to the sands of the open Desert, even these pathways disappear; the wind soon effaces the footprints of the passenger, and we seek in vain for the long white track which guides the traveller through many parts of Northern Africa. The tuft of a pistachio, a lotus-plant, the white top of a sandhill, the summit of a distant mountain—these are the waymarks which guide him across the solitudes. In some of the most monotonous plains, the inhabitants have taken the precaution to raise pyramids of stones, whose sharp projections contrast with the smooth and rounded features of the Saharian landscape. These waymarks are called *kerkors*, and are especially employed to indicate the position of wells. Another kind of monument also is frequently met with. ‘Travelling one day,’ says M. Carette, ‘in company with several Arabs, I was astonished to see them stop, one after another, while each lifted a stone, and still more surprised when they offered one to me. On asking the reason, I was informed that we were going to pass the *nza* of Bel-gacem! Though very little the wiser, I took the stone, and in a few minutes afterwards we came to a pile of pebbles about five feet high. Each of my companions cast his stone upon it, exclaiming “To the *nza* of Bel-gacem!” Of course I added mine when my turn came. This is the Arab mode of raising a monument on the spot where any tragic event has taken place, and it sometimes attains the height of twelve or fifteen feet. Dr Jacquot obtained the following history of one which he had occasion to pass in the Atlas Mountains:—The Ouled-Balaghr occupied the country to the west, while the Thouamas fed their flocks to the east. The latter were a pacific tribe, who desired nothing of their neighbours but to be let alone—their women to weave, their children to tend the flocks, and the men to doze all day, crouching on the threshold of the tent, or stretching themselves on a grassy mound. But, alas! the ferocious sheik of the Ouled-Balaghr continually interrupted their enjoyments, and harassed them with war. He delighted in finding the oily concous ready-baked, and the red piquant sauce smoking in the dwellings of his neighbours; he preferred the yellow streams of honey which filled the trunks excavated by the Thouamas to those which he might himself obtain by patient industry. Besides, he had other tastes which still more deeply aggrieved the husbands and fathers of this inoffensive tribe. Mohammed espoused their cause; and in clear weather the guardian fairies might be distinctly seen surrounding their *protégées* in seasons of extreme danger. One day, when the terrible sheik crossed the boundary, longing after concous, honey, and female beauty, he was met by a holy marabout, bent with age, and leaning on a staff. Raising his decrepit form for an instant, ‘There is no god but Allah,’ said he, ‘and Mohammed is his prophet. Hadst thou the wings of our mountain eagles, or the fleet limbs of the antelope of the plain, thou shouldst proceed no farther. Return to thy douar, rear bees for thyself, make thy women grind corn and barley, and meditate thou in the Koran; but let the Thouamas alone, if thou wouldst not perish on this spot as the scorpion which thy beast is treading under foot.’ But the courser of the sheik was no such pusillani-

mous animal as Balaam's ass of ancient fame: urged by his master's shabeers,* he dashed past the holy man, tossed his mane, and broke into a gallop. He had not gone many paces when he fell; both the horse and his rider dashed their heads on a jutting angle of rock; the little Attila became food for the crows and jackals, but burial was given to the less guilty horse. Every Arab that passes adds a stone to the heap, and exclaims, 'It is decreed!'

Level and sandy tracts are always chosen for travelling when this is possible, which is perhaps the reason that some travellers have supposed the whole Desert to be a sandy plain. The most dreaded part of the route from Twât to Timbuctoo is over the tanezroufie, a plain of stiff red earth, which cannot be crossed in less than ten or twelve days, and throughout which not a drop of water is to be found. In the sand there is at least always a soft dry bed, even after the heaviest rains, where the wanderer may repose his wearied limbs. Here, too, he is more likely to find springs of water than in the clayey or stony tracts. The wells in the neighbourhood of oases are covered with skins, to preserve them from the intrusion of the sand, and furnished with a bucket of plaited halfa, and a cord to reach the water. If this simple apparatus gets out of order, it must be the result of long use or unforeseen accident; for it is guaranteed against wanton injury by the respect which all native travellers entertain for these little monuments of public utility. Any misadventure that occurs to them is immediately reported to the chief of the oasis, who loses no time in repairing it.

The European adventurer most commonly joins the gafala, or merchant caravan, as it is not only the most expeditious, but the most secure and economical mode of performing a journey, the expense of an escort being saved. In all the northern oases of any importance, there are fourdouks or caravanserais corresponding with the principal points of commercial intercourse; and these serve not only as resting-places and hotels, but as rendezvous and starting-points for the caravans which frequent them. If the escorting towns are pretty considerable, the departures are periodical; but in all cases the day and hour of starting is intimated beforehand by the chief driver; and in order to ascertain it, one has only to apply at the proper fourdoug, where all particulars may be obtained.

The muleteers and camel-drivers form the nucleus of the caravan, and regulate its movements. The length of a day's journey is variable, depending on the strength of the company, in connection with the nature of the route and the degree of security anticipated. The usual distance is from twenty to twenty-five miles, but it may extend to forty in regions destitute of water or infested by robbers. Travellers who join a caravan are not obliged to submit to any discipline; there is no community except that of dangers to be escaped, and an end to be attained. If they sustain an attack, each one consults his own courage, and does independently what in him lies to repel or escape the enemy: it rarely happens that any regular disposition of force is made either for the attack or the defence; and occurrences of this nature always produce considerable disorder. The gafalas are almost entirely composed of men whose principal occupation is commerce, but women are

* A kind of spur.

not excluded; and it is no uncommon thing to see widows, having no other means of support, carrying on the traffic of their deceased husbands.

Another species of caravan is the *neja*, or migration of a tribe; and this presents a much more lively scene than a *gafala*. The latter is a concourse of men who have little acquaintance with each other, its march is grave, and often silent and monotonous. The *neja*, on the contrary, is the tribe with its women, its dogs, its cattle, its tents, and all the apparatus of nomade life. It is not composed of isolated individuals, but of families; or rather it is one great family on the tramp. There is, therefore, nothing more lively and pleasant than to join a *neja*: 'the barking of the dogs, the bleating of the sheep, the shouting of the men in charge of them, the crowing of the fowls, and the squalling of the children; all this variety of noises,' says M. Carrette, 'forms a rural harmony which is quite charming in the otherwise lonely and silent wastes; and the traveller finds a novel source of amusement in witnessing the private labours of domestic economy, simple enough, but wearing a strange character when it is remembered that they are all conducted on the back of the camel.'

Suddenly this noisy march becomes silent and pensive—the cavaliers of the advanced guard perceive in the horizon the approach of another tribe; they give notice of it to the sheik, and immediately the ranks close in. The *gafala* carries no standard, for it fears no enemy save the free-booter; but each *neja* is in alliance with one or other of the great parties that divide the Desert, and regard as enemies all the tribes that favour the opposite cause. As the two companies near each other, conjectures are forming as to whether this is to be a greeting of friends or a collision of foes. When they come within reach of the voice, the demand is made, 'Who are you?' If they prove to be allies, they continue their journey apart, on exchanging a *salam*; but if the name uttered is that of a hostile tribe, they reply by blows, and a conflict ensues. The battle never continues beyond sunset, which is the signal for the suspension of hostilities. If one of the parties is confessedly worsted, it avails itself of the night to disappear; but if the issue is doubtful, the belligerents encamp on the field of battle, and renew the conflict in the morning. The Arabs manifest much more animosity in these collisions than in any skirmishes they have with their European invaders, as none are more exasperated than brothers if they happen to be enemies. In war against the infidels, they make prisoners; but no such thing is known in the mutual warfare of the tribes. In the latter case, if an Arab becomes master of a living foe, he slays him without mercy, and hastens to lay the gory head at the feet of his wives, who welcome it with insults and imprecations.

The only exception to these barbarous usages is in favour of three classes of people: marabouts are spared out of respect for their sacred character; Jews and blacksmiths from mere contempt. We have not been able to learn the origin of this feeling towards the trade of a blacksmith; but certain it is, that if a man be surrounded by enemies, and despairing of escape, he has only to wrap his head in the hood of his burnoose, and work with his arms, as if beating iron: they will not stain their hands with the blood of so abject a wretch.

It rarely happens that a traveller joining a *neja* has occasion to carry his own tent and provisions. If he has any acquaintance in the tribe, he

receives hospitality as a guest, and shares the tent and koukous* of his host. This position secures to him all the respect and protection to which the family entertaining him are entitled. Among the strangers who join either a *gafala* or *neja* there are generally found some destitute creatures who, on the day of departure, know not how the bread of to-morrow is to be obtained; but they are under no disquietude—they trust in Providence, and not in vain. Scarcely has the cavalcade started, but they find opportunities of making themselves useful, either in loading or guiding the camels, for which little services they receive their daily food; and it is all they desire. Thus they accomplish a long journey without either expense on the one hand or privation on the other. It is in this way that numbers of poor husbandmen and labourers, not finding their toil sufficiently remunerated in the oases, make their way to the coast, where they form the most intelligent, the most industrious, and the best-conducted portion of the community.

One cannot compare the habits and the wants of one of these camel-drivers of the Desert with those of a European wagoner, without being struck with the contrast. The latter requires, as every night closes in, a roof to shelter him, should it be only that of a hovel, and a bed, though but of straw; he needs nourishing food to support his strength, and this necessity is rendered more imperious by the use of alcoholic liquors. But the Arab camel-driver asks no bed but the sand, no roof but the sky; a fountain of pure water is his most luxurious tavern; his sustenance is moistened meal; and for these he offers thanks to Heaven. Five times a day he prostrates himself on the ground, laying his forehead on the sharp stones of the Desert, if such be the paving of his route, and pours out his prayers to his heavenly Guide, Protector, and Provider. What an example for the well-fed bishops of Christendom!

Neither merchant-caravans nor those of migrating tribes travel at all times or in all directions, so that isolated journeying is frequently necessary. It is generally unsafe for a stranger to attempt this without the protection of either a professional or amateur guide, belonging to the tribe whose territory is to be crossed. He is acquainted with the safe hiding-places and the good springs; he knows when it is necessary to remain concealed, and when he may proceed by daylight; and he has friends along the route from whom he obtains for his companion the same hospitality that is extended to himself.

The provision for a journey consists of rouina, dates, and butter, if one is desirous of luxury; otherwise, the only article of food is rouina. This is simply grain (generally barley) roasted, ground, and pressed into a *mezoued*, which is a sheep's skin tanned and dyed red. Another skin called a *shenna* is required for water: it preserves its hair outside, and receives a coat of tar within; water may be carried in it for ten days without becoming the least spoiled. With the *mezoued* slung like a wallet on one shoulder, and the *shenna* on the other, the Arab often travels immense plains alone and on foot, without meeting human habitation for days together, and this at the rate sometimes of forty miles a day; for he walks

* Cakes made of meal mixed with various ingredients, according to the circumstances of the eater.

from the rising till the setting of the sun. When he wishes for a repast, the table is soon spread: he sits down beside a spring of water, if the place affords one, and lays on the ground a flap of his burnoose, which serves both as dish and tablecloth. He throws into it a handful of rouina, which he moistens with water, makes into a paste, and eats without further culinary process. He then puts his hands together to form a cup, drinks, and pursues his way. A mezoued full of rouina will support him twenty-four days.

It must be confessed that our knowledge of the deserts, as well as of the interior of Africa, is still very imperfect; and while we render due homage to the courage of those martyrs to science who have from time to time ventured into the trackless wastes, and have in few instances lived to return, it must be admitted that the field is too wide and too ungenial to be explored by any such individual and partial researches as have yet taken place. It is to be apprehended that in some—perhaps in many cases—general inferences have been drawn hastily and incorrectly from particular facts; and the sufferings which Europeans have undergone in their venturous excursions may have led them to view things through a distorted medium, and to represent them in such a manner as rather to magnify than diminish the distance which divides us from them. It is not enough to be courageous; we should endeavour to turn our courage to good account by directing it in wisdom; and before throwing ourselves into a region where so many lives have been sacrificed, it would be well to know so much about it as to make our progress safe, and our observations intelligent and useful. It has been suggested by some who have become personally and intimately acquainted with the Northern Sahara, or Land of Dates, that among the natives themselves might be found useful explorers to prepare the way for European adventure. In Tunis, Tripoli, and Alexandria, the points in which terminate three of the great commercial arteries of Interior Africa, there are always to be found Arabs who have traversed in every direction the whole country between Egypt and Guinea. We might send such as these into the heart of Africa, to collect all the particulars which it is desirable to obtain: they are naturally enterprising travellers and acute observers of natural phenomena; and their native instincts, properly directed, might yield us an immense fund of information at a very trifling cost. They might be commissioned to bring specimens of all the natural productions, first of the Northern Sahara, then of the Central, and, lastly, of Interior Africa; of the plants, the grain, the shells, the stones, the fruit of different kinds, and stuffs of various fabric. They might be instructed to count the houses of a town, the tents of a tribe, the camels of a caravan; and thus should we have accurate data on the strength of the population and the progress of commerce. They might be directed to count the paces from one oasis to another, to follow the course of a stream, to measure a basin; and thus we should have geographical details.

‘I was curious,’ says M. Carette, ‘to ascertain by experiment how far these rovers of the Desert might be transformed into deputy travellers, and the result even surpassed my expectations. I gave a scientific commission for a distant part of the Date-Country to an intelligent but illiterate Arab belonging to one of those Saharian tribes which make the most extensive circuit in their annual migrations. His instructions were

confined to objects of natural history, geography, commerce, and statistics ; but the child of the Desert spontaneously became an archæologist : having met with a Roman inscription, he copied it as faithfully as he could, supposing, according to the traditions of his country, that it contained some important revelation which I should be able to expound.'

If it be asked whether the veracity of such agents could be depended upon; it is answered that they would at least be as worthy of credence as the generality of European travellers ; that is, quite as little prone to perversion or exaggeration, and somewhat less liable to mistake or deception ; but we could easily verify their testimony by despatching two successively on a similar mission. If Europeans who understand the language of the Arabs, and know how to humour their peculiarities, would take up their position about the skirts of the Desert, and employ themselves in directing native explorers, and then collecting and comparing their reports, instead of plunging themselves into the pathless wastes, where their religion is abhorred, their motives suspected, and their lives considered fair game, we might soon have such a programme as would open a well-defined field for European enterprise, whether commercial, scientific, or religious.

SIGISMUND TEMPLE.

THE pale, anxious face of a dying man, scarcely past the prime of life, looked forth from the casement of a homestead on the sea-skirted shore of Devonshire, just as the evening of a stormy day was falling silently and sadly upon the fading landscape and the vast perturbed Atlantic, over whose distant horizon the sunset clouds still threw a wintry effulgence. A fair young girl stood near the sofa upon which the invalid reclined, vainly striving to dissipate, with broken words of love, the dark fancies of a spirit which stubbornly rebelled against the decree that he knew had irrevocably gone forth. 'Nearer—nearer to me!' he faintly murmured, after a long and wistful gaze at the drear and melancholy scene without. 'Let me, whilst you may, feel your sweet breath upon my cheek, the warm pressure of your gentle hand in mine. Darkness is falling upon all things, as upon me; but the dawn will reawaken in the smile of the new dawn, and again put on her robe of light and flowers, whilst I can scarcely dare to hope that I shall safely ferry over the dark waters which roll between me and the retreating light of life!' As he spoke, a strong gleam of parting sunlight burst upon the wintry view, suddenly and briefly illumining the thick woods and darkening ocean.

'There is still light in Heaven,' whispered the weeping girl, as she stooped to kiss the pale forehead of her parent, 'and always hope.' The dying man gazed with silent earnestness upon the changing scene. The sun set and a cold, grey tint succeeded; then darkness fell: but presently the southern stars looked forth, and soon the full, clear moon rose high above the sea, shedding a silver glory over the earth, and throwing a radiant gleam across the dark and troubled waste of waters.

'There is light in Heaven!' murmured the invalid, with a faint smile; 'but it may be as you say, Lucy—hope, even for me who have so recklessly, so guiltily misused and squandered the high and precious gift of this brief but great existence!' Presently he added: 'But for your sake, dear child, I must no longer dally with the fleeting moments yet remaining to me. Wheel me closer to the fire, and after listening to a confession I have, I almost fear, too long delayed, pity, and, if you can, forgive me.' Lucy Gaston silently obeyed her father's command; and then, kneeling on an ottoman by his side, and taking his wasted hands in hers, looked up with patient attention and tenderest compassion in his face.

The apartment in which they sat was evidently an artist's working-room.

There were numerous finished and unfinished paintings on the walls; and on an easel there was one that, in the imperfect state in which the failing hand of the limner had left it a fortnight previously, was easily seen, even by the imperfect light which now reached it, to be a portrait of Lucy Gaston. The sunny eyes of blue, the wavy, golden hair, the dazzling purity of complexion, the sweet, almost infantine smile which parted the coral lips, were unmistakably hers, transferred in a felicitous moment to the canvas by the artist, to whom it had evidently been a labour of love. He was now about to paint himself: let us hope as faithfully.

'Forty-seven years,' he began, 'will have passed on the 8th of February next since your father, the first and only surviving child of William and Rachel Gaston, was born at Leeds in Yorkshire. My parents carried on a respectable retail business in that city. I was not only deemed a remarkably handsome boy, but I early displayed extraordinary precocity of intellect; and my proud and indulgent father and mother, with well-meant but injudicious, hurtful kindness, stimulated, instead of checking, the naturally vain, impulsive, and, as I cannot now conceal from myself, utterly selfish instincts and disposition of the son of their doting love. I was held to possess *genius*; and that my parents, and the foolish people who counselled them, believed all-sufficient in itself to build up greatness, and would only be dwarfed and crippled by the discipline of strict study and close application. Strange, but too common error! As if weeds would not take root in a rich untended soil, and absorb in their rank luxuriance the energy which, wisely and vigorously directed, might bring forth fruits of worth, and usefulness, and beauty. Especially in drawing and painting I was held to manifest great capacity. I submitted with impatience, and this for no great length of time, to the dry study of the rudimentary rules of art, quite satisfied that being admittedly a genius—ill-understood word!—I needed none of the mechanical aids and appliances necessary only for the dull plodders whose feeble powers required such crutches. My libertine and unguided pencil was held to be especially successful in caricature—in seizing upon the ridiculous, the awkward and absurd, and gibbeting those weaknesses for the amusement of the fools and dastards of our acquaintance. Nothing, as I have sadly proved, is so fatal to the generous development of youth as the habit of satire—of indulgence in puny, malicious sarcasm. It generates a feeling of sneering superiority; a disposition to search out and dwell upon the failings and weaknesses of people; and gradually induces a disbelief in the existence of either nobleness or talent out of self. It was thus I wasted the golden days of life, and at twenty-one found myself the idol indeed of my parents, but contemned, slighted, shunned, and—my evil disposition exulted in knowing—feared, by all the good, the wise, the amiable, to whom the exercise of my reputed talents had made me known. In reality, I was as ignorant and unskilful as I was offensive and vain. A picture on a serious subject, which I had the presumption to send to London for exhibition, was returned with a criticism so humiliating, and yet I felt so entirely, so mercilessly true, as almost to drive me mad. A sharp but brief illness followed, and when I recovered, the counsel of a man of sense—to whose advice I had previously listened with lofty contempt—induced me to recommence the study of the rules

and principles of art. My father of course yielded to this new caprice. I was sent to the metropolis, and placed in the studio of an eminent master, uncontrolled, save during the hours of instruction and practice, by any other guide than my own fierce will and unbridled passions. My parents, whose faith in my coming and not far-off greatness was illimitable as ever, supplied me freely with money; and the consequence to a vain, impulsive young man thus thrown into that vortex of folly and dissipation, may be easily divined by men of the world, but not to be dreamed of or guessed at by you, my pure and gentle child. I worked,' continued Mr Gaston, after moistening his lips with lemonade — 'I worked earnestly, but only by fits and starts, and I advanced but slowly in knowledge of my art, compared with the proficiency I speedily acquired in the usages and maxims of a depraved society. Incessant applications for money, under one lying pretext or another—nay, Lucy, it is the right, the only word to use—were received by my parents, and always complied with, though latterly the simple confiding creatures hinted at difficulties in supplying my increasing wants. This had gone on for several years, till at last a crisis in my life arrived. I was introduced by a well-connected fellow-student, who knew little of my habits, to the house of Captain Austin of the Royal Navy, who, with his unmarried daughter, resided at a pleasant habitation about a mile beyond Hampstead. Caroline, another daughter, had been some months previously married to a Mr Fanshawe, the presumptive heir to a barony, though not one of the richest in the peerage. I never saw her, but she was reputed to possess the too often fatal gift of beauty in a still higher degree than her sister, your mother, sweet one. You remember your mother, Lucy?'

'Faintly, imperfectly. You know I was not five years old when she was taken from me. Yet often in my dreams I hear a gentle voice, which I know to be hers, calling me by name, and see again her pale, marble face, and beautiful but mournful eyes, bending over me with watchful tenderness'—

'It was I who quenched the joyous light of those sad eyes, and chilled the warm current of eloquent blood that once mantled those pale cheeks,' interrupted Mr Gaston with sad emphasis. 'I who—— But I must check this flood of bitter memories, or what I have to say will, I fear, remain unspoken. I fell desperately in love with Lucy Austin; the feeling was mutual; and I ultimately succeeded, well knowing as I did that her father had higher, more ambitious views for her, in inducing her to consent to a private marriage. A few weeks of bewildering happiness fled past on lightning wings; then the thunder burst, and the brief dream was dissolved for ever! Suspicion of what had occurred was communicated to Captain Austin by the student who had introduced me to his house, who at the same time placed in his hands intelligence as yet unknown to me concerning my father. In an agony of apprehension, Captain Austin flew to his daughter's room, broke open her writing-desk, and speedily convinced himself of the truth of his informant's report. His dismay and rage were extreme. Your mother was from home; and upon me, who entered the house a short time after the discovery was made, the first burst of the tempest fell. Every epithet of opprobrium that contempt could invent and hate express was hurled at me. I replied only by a disdainful smile, till

Captain Austin threw a newspaper he was holding in his hand towards me, accompanying the act by a few rageful, startling words. I glanced over it: "William Gaston of Leeds, ironmonger, bankrupt." The words swam before my eyes; my brain reeled, and I staggered blindly out of the house, still pursued by the maledictions of the enraged father. I procured a coach, hastened home, and there found a letter which confirmed the fatal news. William Gaston, whom I had represented to my wife and others as a wealthy merchant, was hopelessly insolvent, unless, indeed, the still deceived, still confiding old man wrote, "I could sell two or three of the great pictures I had painted;" in which case an arrangement might, he thought, be effected! I raved with frantic passion and remorse, and an impulse to rid myself of shameful life was only checked by the arrival of your mother. Her father had thrust his disobedient child from his door; and she, poor, stricken dove, hastened at once to the haven of her husband's arms, and, deceived as she had been, still whispered in his ears her woman's spells of home, and peace, and love.

'A bleak future was before us,' resumed the sick man, as soon as the choking grief which his narrative excited in Lucy Gaston had subsided to a calmer sorrow; 'but with persevering, steady effort it would soon have brightened, and every difficulty have been overcome. I, alas! was only capable of fitful, spasmodic exertion: the slightest failure or disappointment chilled and disheartened me. I struggled feebly, because without hope or confidence, and soon abandoned the contest in despair. My father, by the kindness of his creditors, who greatly respected him, and justly imputed his insolvency to my criminal extravagance, was enabled to recommence business in a small way. He, therefore, and my mother, were so far provided for; but how could I, whispered my selfish heart, burdened by a wife, and soon, possibly, by a numerous family, hope to retrieve the wasted years, and emerge from the slough of poverty in which I was plunged? An unexpected communication enabled me to effect the purpose I brooded over with some show of human feeling. Captain Austin, wearied by the remonstrances of his eldest daughter, who had some time previously become Lady Fanshawe, and mother of the Honourable Caroline Fanshawe, your cousin, caused it to be intimated to us that he would allow my wife two hundred and fifty pounds a year, on condition that she separated from me. Neither he nor Lord Fanshawe, who I believe contributed the largest portion of the money, would hear of assistance being rendered to us on any other terms. I insisted that the offer should be accepted; your mother yielded a compelled assent, and I never saw her more. It is useless,' continued Mr Gaston after a painful interval of silence, 'to dwell upon my afterlife. Ultimately I reached Italy—Rome; and after a time succeeded in attaining a sufficient degree of excellence as a painter, to insure myself a comfortable, or I might say, a handsome subsistence. I was liberally patronised by British visitors to the Eternal City; and had I known that any one belonging to me would have been spared me—that you, Lucy, lived to cheer and bless existence, I might perhaps have in some degree retrieved the crimes and follies of the past, or at all events, the bitter thought that I am leaving you unprovided for, friendless—your fine nature uncultivated, undeveloped, and exposed, with the rare beauty you inherit from your mother, to a thousand perils you would not, but for that

perilous gift, encounter. But I knew it not. I had left no trace of my whereabouts; and it was only through the newspapers which I have shewn you that I learned the deaths of father, mother, wife, long after they occurred. Your death, in childhood, was, as you know, by some unintelligible mistake, recorded in the same paragraph that announced your mother's: this I believe is still Lord Fanshawe's impression, for Captain Austin survived his daughters, who died within a short time of each other, by a few weeks only. Success had come too late—even for self: my heart was withered, and gradually but surely the springs of life gave way. Weariness of all things beneath the sun had worked itself into the warp and woof of my being, and a melancholy which nothing could cheer or lighten settled heavily upon both heart and brain. In my despair, I sought relief from the discipline and expiatory penances of the Roman Catholic Church—vainly sought it. The pious homilies and exhortations with which my ghostly counsellors sought to reanimate my bruised and wearied spirit, were profitless as bread placed in a dead man's mouth. I was dying, lingeringly and hopelessly, when eight months since a chance-meeting with a relative of Captain Austin revealed the probability of your existence. He at least had seen you months after the date of the newspaper paragraph. It was a gleam from Paradise! I hastened home with frantic speed; found, clasped you in my arms, and read the holy and blessed letter of forgiveness, pity, love, which your sainted mother requested should be placed in the wanderer's hands the instant he returned to his abandoned home! But those divine ministrings to a mind diseased came too late; and yet but a few days, hours rather, and I shall have passed to my long home, and you—Alas! alas!'

The agitation of the invalid drowned his feeble utterance, and for many minutes no sound was heard in the apartment but the quick sobs of the parent and child weeping in each other's arms.

'These worthy people,' at length resumed Mr Gaston; 'these Whistons—Susan, as you call her, especially, and her cousin, Mary Crawford—are very kind to you; and with them I think it probable you may always find a home.'

'Fear not for that, dear father. Susan and her cousin Mary have been sisters to me; fond, proud, anxious sisters from my earliest remembrance.'

'Ay! He has tempered the wind to the shorn lamb. But still the time may come when even Susan's friendship will fail or'—

'Never!' exclaimed Lucy Gaston.

'Or not suffice, I should rather say. For this reason it is that I request your heedful attention to what I am now about to say. Your cousin, the Honourable Caroline Fanshawe, bears a gentle reputation, and holds, I have heard, her mother's memory in great reverence. Several of that mother's kind, sympathising letters to her less fortunate sister, you will find in my writing-desk, enclosed with an explanatory note from me, in an envelope directed to Lord Fanshawe. You will, should you need counsel or assistance, forward that parcel to its address—or indeed immediately I am gone; for the society of these Whistons, kind and worthy as'—

A gentle knock at the door interrupted him. It was Mrs Whiston, Susan, to say that a priest—a Roman, hesitated the young woman, as if

announcing some terrific personage, was below. 'He came,' she added, 'on horseback, and says he was sent for.'

'Quite right,' said Mr Gaston with a sad, feeble smile. 'Ask him to walk up. Kiss me, Lucy. I will ring for you soon after this visitor is gone.'

The priest had left Vale Farm, after a long interview with his penitent, for more than half an hour, when Lucy Gaston, surprised and impatient at not being summoned, softly entered her father's apartment, who, she concluded, must have fallen asleep. His attitude, and the long wicks of the candles, placed on a low table by his side, confirmed this impression. The light of the candles shining full upon the sleeper's face, as he lay calmly reclined upon the couch, gave it, she thought, an unearthly pallor, and she noiselessly approached to remove them. Gently she bent down over that erring, but oh! how fondly, freely-forgiven parent! Her warm lip touched his; instantly a piercing scream ran through the house, and Lucy Gaston was found a minute afterwards by Mrs Whiston and Mary Crawford, fainting, and almost insensible, upon the dead body of her father, which she wildly clasped.

Mr Gaston, in compliance with his own earnest request, was buried in the Catholic chapel of the neighbouring town, in a tomb excavated in front of the sanctuary. The funeral, perhaps for effect, took place on the evening of the sixth day after his decease, and the building was crowded by persons attracted by the unusual ceremony. The novel and imposing service, the profusion of lights, the perfume of the incense, the deep tones of the organ, fitfully broken and relieved by the choral wailings, the exulting bursts, of the mass of requiem, and at intervals by the lone, solemn voice of the officiating priest, combined with the heat of the atmosphere, proved too much for Lucy Gaston, and she would have fainted but for the pungent essences which Mary Crawford, who, with Mr and Mrs Whiston, accompanied her, plentifully administered. Her bonnet and veil had been removed, and she had partially recovered, when the lowering of the coffin to its final resting-place caught her attention. She sprang impulsively forward, threw herself on her knees beside the grave, and with clasped hands and streaming eyes ejaculated a fervent prayer to God, quite unconscious of the profound sympathy and admiration which her attitude and seraph countenance, strongly illumined by the lights of the sanctuary, and mantled with a profusion of golden hair, excited in the hushed and crowded auditory. Mary Crawford recalled her by a whisper to a sense of her position. She rose hurriedly to her feet, shrank back out of sight behind her friends; and the ceremony soon afterwards terminated.

Amongst the number of the curious whom the pomp of the service had attracted to the chapel, were two gentlemen, whose dress and carriage marked them to be persons of condition. One, the eldest, might be about six-and-twenty years of age; the other was perhaps three years younger. They were brothers; but there was a striking difference in their personal appearance. The eldest was fair-complexioned and light-haired; and, though handsome, had somewhat of an effeminate look. The younger gentleman's complexion, cast of features, and dark, brilliant eyes, intimated a mixture of more southern blood; and his figure, though elegantly formed as that of his brother, was more vigorously knit together.

'She is the daughter of the man to whom they have been paying such extraordinary funeral honours,' said the youngest of these gentlemen, rejoining his brother, whom he had quitted for a few minutes on leaving the chapel. 'Miss Lucy Gayton, or Gaston: her father was a painter, and her abode is at Vale Farm, distant from this town about five miles.'

'Did you ever, Sigismund, see so angelic a countenance?' asked the elder brother as they walked on.

'Humph! Yes, Arthur: that of the superb Caroline is, I think, superior, though certainly of quite another order of beauty.'

'Quite. And what a softening charm the eloquent sorrow of the eyes threw over that beautiful face!'

'True,' replied the gentleman addressed as Sigismund, in a tone slightly *moqueur*. 'An effect similar to that produced on the Queen of Flowers—

———' When o'er the rose
A veil of moss the angel throws.'

But come, here is the carriage; let us away, or Marion will wonder what has become of us.'

These young men, brothers of Sir Edward Temple, Baronet, of Grosvenor Square, and Temple House, Somersetshire, were on a visit to their sister, Marion Temple, who usually resided during the winter months in Devonshire for the benefit its mild climate and temperature afforded her delicate health. She was staying with the family of the Rev. John Benton, and an hour's smart drive brought them to the venerable rector's door. They both returned to London a few days after Mr Gaston's funeral; and any further inquiries Mr Arthur Temple might feel disposed to make respecting the beautiful vision of the chapel, were necessarily postponed to a future and more convenient time.

The seasons in their change flew past. Spring had once more strewed the earth with flowers; summer laughed amidst the streams, and fields, and woods; autumn yielded her rich harvests to the sickle; and rough honest winter, with his no less genial frosts and snows, was again rapidly approaching. No incident of any importance had occurred during this varied miracle at Vale Farm. Lucy Gaston still dwelt with her attached friends. How, indeed, was it possible she could think of leaving Susan! Susan, who had been her playmate, protectress, friend from childhood—Susan, who had positively refused to marry honest, good-tempered, excellent John Whiston, the owner of more than three hundred acres of arable and pasture land, amply stocked, and in high cultivation, unless it was distinctly understood that dear Lucy should be considered as absolutely one of the family. Leave her and Mary Crawford for her grand cousin, the Honourable Caroline Fanshawe, even supposing, which was not at all likely, she would be willing to receive her—impossible! All parties concurred in this view of the case; and it was unanimously agreed that the notion of Lucy Gaston leaving Vale Farm, except, indeed, as the wife of a nobleman, or rich squire at the very least, was altogether ridiculous and absurd.

The marriage of the beautiful orphan, if not with a positive nobleman or landed squire, with a young, handsome, rich, fashionable gentleman, became, as the year waned, a settled conclusion. Mr Arthur Smythe, who had been

lingering for several weeks about the farm, under the pretence of shooting, and whose manners were so elegant and gentlemanly, had at last proposed for Lucy's hand, and been blushing accepted. Honest John Whiston satisfied himself that Mr Smythe possessed an income of fifteen hundred a year, derived from the funds; no possible objection could therefore, he thought, be made to the match; and preparations for the wedding immediately commenced. It was also agreed, although Mr Smythe had yielded the point with manifest reluctance, that Mary Crawford should accompany Lucy, and live with her as companion for, at all events, the first twelvemonth; and Lucy promised to visit Vale Farm at least twice a year; so that the separation would, after all, Mrs Whiston strove to persuade herself, be only partial; a hope her more keen-sighted cousin did not share. Mr Smythe would, *she* believed, gradually withdraw his wife from all intercourse with her country friends. Mary Crawford, however, kept her opinions to herself. Mr Smythe was beloved of Lucy, and her own perhaps unreasonable suspicions and half-dislike of the bridegroom went for nothing, and ought not, she felt, to be expressed.

Yes, the graceful manners, the refined homage, the honied accents of the youthful and handsome sportsman, had kindled into life and form the hidden mystery of love, sleeping till then in the pure depths of Lucy's calm and gentle spirit. Was he capable of appreciating the priceless treasure thus revealed, and awaiting his acceptance; or would he, with man's careless vanity and disdainful caprice, look with indifference upon the prize which perchance the eagerness and fervour of pursuit had merely invested with an adventitious and temporary charm? Momentous questions these that would have instantly arisen in the minds of a father or mother, quicksighted to the workings of human passion, and conversant with the ways of men and of the world! Lucy Gaston had lost those guides; and she had no other counsellor or guardian than her native purity of heart, her gentle dignity of unsuspecting innocence, her innate pride of maidenly reserve—celestial visitants! and all-potent, too—on the one perilous condition that they are so intimately associated with, and regardful of their votary and exemplar, as never to be careless of their charge, or slumber for an instant at their posts! It proved so with Lucy Gaston; and however light or trivial the motive which first induced Mr Arthur Smythe to while away the unheeded hours in the society of the young rustic beauty, he ultimately became enthralled to a degree he had not perhaps imagined to be possible; and the result, as I have stated, was the offer of his hand to the humble, unportioned maiden, and its grateful, blushing acceptance.

Marion Temple had returned with the fall of the year to Devonshire, and again taken up her abode at the Rev. Mr Benton's, distant about eleven miles from Vale Farm. Her brother, Mr Arthur Temple, accompanied her; and about a week previous to the day named for Lucy Gaston's union with Mr Smythe, Mr Sigismund Temple arrived on a flying visit to his relatives. After a sojourn of two days only, the new-comer announced his intention of returning at once to London. He was, Marion Temple saw, deeply offended with his brother Arthur, who, for some reason studiously concealed from her, had peremptorily refused Sigismund's earnest request that he would accompany him back to town.

'Idiot!' mentally soliloquised Sigismund Temple, whilst waiting on the

morning of his departure for his brother's appearance in the breakfast-room of the rectory—'Idiot! And yet his headstrong folly concerns me but in a remote, improbable contingency. I would, however, he did not marry just yet. The fatal taint which Sir Edward has, it is thought, inherited from their mother—Marion, too, I fear is doomed—lurks very probably in his veins; but should he have issue by this marriage, my hopes—hopes did I say?' continued the young man, with an audible outburst of remorseful grief, as he rose from his chair, and paced agitatedly to and fro the apartment—'hopes! Is Nature's milk so turned to gall within me that I *hope* for the deaths of brothers whom I loved so well, till I knew that the unjust and cruel laws of entail and primogeniture had beggared me to enrich them—in succession enrich them—for Edward, I think, already stands on the verge of the grave! Alas! it is but too true. I should lie to my own heart if I denied it; but is the blame mine? After all,' he presently added in a calmer mood, 'they are but my half-brothers: they have no share in the vigorous maternal life which'—

A distant step arrested the current of his thoughts, and when Arthur Temple entered, he had resumed the listless, sardonic attitude and expression which he usually exhibited. After a few words on indifferent subjects, Sigismund Temple again endeavoured to dissuade his brother from the rash step he was contemplating. It was labour thrown away: he could not make the slightest impression with all his subtlety and sarcasm.

'Well,' he said, 'if Wilful must to water, Wilful must drench; but I again repeat, that if I were Arthur Temple, with only one frail life between me and an ancient and wealthy baronetcy, it should be something more than a pretty face that would tempt me into the noose of matrimony.'

'Pretty face! I tell you, Sigismund, that Lucy Gaston is one of the gentlest, purest, most charming and beautiful of women, and no more ambitious of wealth or station than of a convent. She would have accepted my offer had I been poor and dependent as joyfully as now.'

'Arthur, you are a—— But I forbear; it is, I know, useless arguing with a man labouring under the insanity of passion. You are preparing a future of misery not only for yourself but this poor girl. Before twelve months are past the refined elegance and courtly grace of such women as Lady Alice Merivale will return upon your imagination with a brilliancy and power infinitely heightened by contrast with the mindless rustic who has temporarily caught your fancy; and you will bitterly as vainly repent your present mad infatuation.'

'That woman, Sigismund, is an incarnation of mere worldliness. She has neither heart nor soul.'

'As you please; but she has at least a charming person, and a sparkling, cultivated wit; and to me it appears rather a proof of good sense than necessarily of heartlessness that she some two years since looked coldly upon the advances of a young gentleman who, unless his elder brother dies without male issue, is condemned to vegetate upon a poor fifteen hundred a year. Perhaps,' added the speaker, looking keenly in his brother's face, and speaking in a low and meaning tone—'perhaps had Sir Edward's health been at that time in the fragile state in which it is now feared to be, the lady would have been less reserved and cruel.'

'It is useless, Sigismund, to recall such memories; they have died,

within me, and so have the pulses of ambition. With the beautiful and ductile creature with whom my fate will shortly be united I shall calmly glide down the stream of life, undisturbed by and heedless of the jostlings, the puerile distinctions of a world for which I feel neither sympathy nor respect.'

'A dream, Arthur—a silly, womanish dream, to be followed, be sure of it, by a very bitter awakening. But enough: we part friends, I hope?'

'You persist in not remaining then?'

'Certainly. I should only involve myself, without in the slightest degree serving you, were I present at the ceremony.'

'I do not comprehend your meaning.'

'It is nevertheless plain enough, if not to you, whose head is amongst the stars, or rather clouds, to me, whose attention is necessarily fixed on mundane things. You, at least, are independent of Sir Edward Temple to the extent of fifteen hundred a year; and if the elder obstacle were to precede you to the world of shadows'——

'Shame on you, Sigismund!'

'Be it so: I am at all events no hypocrite; and this system of begging every child but one in order to maintain what is called family dignity, is scarcely one adapted to cultivate fraternal affection. You, I repeat, have a revenue, though perhaps an insufficient one, whilst I unfortunately have no dependence save on the parliamentary and social influence of the present head of the House of Temple to quarter me in an eligible manner upon the public revenues. You know Sir Edward's pride of birth and ancestry, and cannot therefore be blind to the folly I should commit by in any manner appearing to forward or countenance a *mésalliance*, the discovery of which will so terribly enrage him; and he may, spite of appearances, live many years yet. Besides,' added Sigismund Temple, after a few moments' silence, and with an exaggeration of his usual sardonic sneer, 'the fewer the witnesses to the ceremony the better, perhaps; and it may be so esteemed by you some of these days. The retention of the name of Smythe, too, will be well.'

'The assumption of the name of Smythe was an accident—a caprice without motive; and I shall probably reassume my own'——

'You had better not. Take my advice in this, at least.'

'Sigismund, envy and discontent have not only soured your once frank and joyous temper, but perverted your sense of right and wrong.'

'Say rather, brother mine, that they have in a slight degree sharpened my wits. Younger brothers are necessarily somewhat precocious. It is only your elder born who can afford to remain fools *en permanence*! Good-by; I shall at all events keep your secret.' The brothers shook hands, and Sigismund Temple was soon on his way back to London.

Arthur Temple remained for a considerable time after his brother had left the apartment where the foregoing colloquy took place in a state of profound meditation. 'Smythe!—Temple!' he at last audibly murmured—'What is there, after all, in a name? The one will do to conjure with as well as the other; and after all, as Sigismund says—— At all events, I am very slightly indebted, and owe but scant allegiance to the proud family name. The fifteen hundred a year which I inherit descends from my mother; and yet I have often thought how delightful it would be to

witness Lucy's sweet, artless expression of grateful wonderment when informed that she was about to marry into the distinguished family of the Temples—to be sister-in-law to the magnificent Sir Edward Temple, whose grand fêtes and splendid entertainments sometimes afford a paragraph to the county paper! Yet that would not be prudent! We must, as we value peace of mind, contentment of heart, shun comparisons of our state with his. Better to draw a veil before the grandeur, be it even that of a brother, that would but mock our own comparatively poor means of life. Yes! I will certainly take Sigismund's advice in this one instance: the name of Smythe, which I carelessly, capriciously assumed, shall be retained, unless, indeed'—— The young man's face flushed crimson; he hurriedly rose and walked to and fro the room, as if the quick pulsation of his veins forbade for the moment repose or immobility of body—'unless, indeed, Sigismund's insinuation, that Sir Edward's health is fatally undermined should prove well founded: then, indeed, to salute my beautiful Lucy as *Lady Temple*—as the mistress of *Temple House*—of the mansion in Grosvenor Square—as the wife of a baronet of ancient descent and princely wealth—that indeed were a proud moment in both our lives—that would be—— God of Heaven!' added the conscience-struck young man, his voice suddenly falling to a trembling whisper—'am I, too, an eager speculator in the chances of a dear brother's death?—do I count grudgingly the sands of life allotted to a son born of the same mother as myself?—have the words of Sigismund but wakened an echo slumbering in my own heart—but swept away the illusive colouring from the mirror in which I before glassed myself, and shewn me my *true* self? Terrible questions, which I know not how to answer!' He ceased to speak, and shudderingly covered his face with his hands, as if he would shut out the appalling, self-revealing spectre which dimly flitted past. It was some time before he perfectly recovered his usual calmness: when he had done so, his thoughts appeared to gradually fall into the channel they had first taken on his brother Sigismund's departure; and by the slight interjectional comments which escaped him, he was evidently again pondering the expediency of revealing his true name and condition to his promised bride. The decision arrived at was that suggested by his brother; for, as he left the apartment to rejoin his sister Marion, he muttered: 'Yes; Smythe let it be—for the present at all events. I can, should occasion arise, easily resume my proper designation; whereas—— But *au jour le jour*.'

On the appointed day Arthur Temple was accordingly married to Lucy Gaston in the name of Smythe. Immediately after the ceremony the newly-wedded pair set off for Holly Lodge, three or four miles out of Bath, accompanied by Mary Crawford and John Robson, Mr Temple's groom, who, with Mr and Mrs Whiston, had witnessed the ceremony.

Sigismund Temple arrived in Grosvenor Square in barely sufficient time for dinner, to which a small but distinguished party had been invited. The Honourable Caroline Fanshawe, young, amiable, and of dazzling beauty and imperial presence, was there, accompanied by her father Lord Fanshawe. The queenly head, set magnificently upon brilliant shoulders from which the Roman purple might be fitly draped, the exquisitely chiselled nose and mouth, the lustrous purity of her complexion, the splendour of her fine

dark eyes, the wavy luxuriance of her glossy hair, her finely-moulded person and regal carriage, formed a royalty of beauty which compelled the homage of the surprised beholder as to a being of diviner attributes than belong to earth. This lady Sigismund Temple had frequently met, but had lately resolved to shun, as a person dangerous to his peace—he, a younger brother, and she, highly connected, but by no means rich—for the Fanshawe estates, strictly entailed on heirs-male, went, at her father's death, to a nephew—and, as he thought, as aspiringly ambitious as himself. On this evening, however, she, on his appearance in the drawing-room considerably before the other gentlemen, manifested a graciousness of demeanour, before which his prudent resolves vanished like morning mist before the sun. Fascinated, intoxicated by smiles which played like summer lightning about his heart and brain, and the rich caressing tones of her magical voice, he yielded unresistingly to the witching influence he had wisely determined to avoid; and it was with a feeling almost of resentment that he found himself interrupted in his perilous *tête-à-tête* by the entrance of Sir Edward Temple, Lord Fanshawe, and other gentlemen from the dining-room.

Sir Edward, who, I may remark, was an eminently handsome, as well as a very honourable, well-meaning man, appeared in jocund spirits. He looked somewhat pale and delicate, but he had been for several weeks free from pain; and his physician had not only pronounced him convalescent, but had intimated a rather positive opinion, that should no untoward change occur, which he did not anticipate, the tendency which had been feared towards consumption was effectually arrested. Agitation must, however, he declared, be strictly avoided, or fatal and immediate consequences would in all probability result. The character of Sir Edward's illness was known only to his medical adviser, and partially by his brothers. The outer world only knew that he had been ailing somewhat, and was now essentially recovered. Sir Edward, who, as much as possible, closed his own eyes to the danger in which he stood, would have resented as an unpardonable offence, any report that he inherited his mother's fatal malady.

The baronet approached Miss Fanshawe, and the pulsation of Sigismund Temple's heart was momentarily arrested, as he observed the smiles which he had for the last half hour monopolised, bestowed with even yet more playfully caressing charm upon his elder brother. Sir Edward felt their influence, and his countenance lightened with unusual gaiety and joy.

'I do not know,' he said, 'when I have felt so light of heart. One—certainly not the especial reason which lifts me above the earth'—the brief glance of mutual intelligence did not escape Sigismund Temple—'but one cause of the exultation I feel is the excellent report Sigismund gives of Marion's health. It is a foolish fancy, or superstition, certainly,' added the baronet in a slightly disturbed tone, 'but the belief clings to me—partly perhaps, because we are thought to so much resemble each other, or because we have been till lately so constantly together—that our lives are bound up with each other, and will end together.'

'Surely a very absurd fancy,' remarked Miss Fanshawe.

'Yes; one cannot reason upon it. You remember the German astrologer, Sigismund?'

'The German cheat and swindler, you mean.'

'It may be so. And yet for all that reason or philosophy may urge, I cannot help feeling rejoiced, for my own sake as well as that of Marion, that she is recovering.'

The lady glanced towards Sigismund, and he thought a faintly ironical smile curled her beautiful lip, as she said: 'And, pray, what may have been the precise text of the astrologer or cheat's prediction?'

'The usual jargon,' replied Sigismund Temple, rising as he spoke. 'The lines of life in Marion and Sir Edward resembled each other, ending I think in the same house, or some such gibberish.'

'That is a prophecy which, under certain circumstances, might realise itself,' observed Miss Fanshawe; and a shade of anxiety or concern passed over her brilliant countenance.

'I trust not,' said Sir Edward Temple, with a proud and grateful smile; 'but this is not a time for such themes. Shall we have a little music? Perhaps you, Caroline, will again favour us with the charming melody you sang the other evening?'

Miss Fanshawe rose in compliance with the baronet's request, and Sir Edward led her to the piano.

'Caroline!' muttered Sigismund Temple, with white quivering lips—'Caroline! This, then, is the meaning of her condescending graciousness. Everything is his—imperial beauty, princely wealth, whilst I'——

The tones of the singer's fine contralto voice broke in upon his bitter musings. He permitted himself to drink in a few bars of the entrancing strain; and then, as if fearful of trusting himself longer there, hastily left the apartment, and did not return during the evening.

The brothers again met on the following day at dinner. They were alone; and when the servants had retired, Sir Edward, breaking a pause of some duration, said abruptly: 'Caroline—— What is the matter, Sigismund? You quite startle one.'

'Nothing—nothing! A slight spasm; nothing more.'

'Where, dear Sigismund?' inquired the baronet anxiously. 'On the left side? It is there I frequently—not now, but some time ago—felt such attacks, and Dr Bailey thought gravely of them. You should consult him: he will be here in the morning.'

'It is nothing, Edward; proceed.'

'Caroline—Miss Fanshawe, I was about to say, felt surprised at your abrupt departure yesterday evening.'

'Indeed!'

'And still more so that I had not informed you of our engagement. That pain again, Sigismund? you are suffering terribly. I will instantly send for Dr Bailey.' The baronet rose to touch the bell.

'No, no; do not. It is passed already; go on.'

'She imagined you had known of my proposal and its acceptance. But you have been absent during the last week, and I saw you but for a few minutes before dinner yesterday. The marriage will not take place just yet: about May or June next, Lord Fanshawe suggests; and by that time, I doubt not, all fear of a relapse of ill health will be past.'

'Damnation! how hot and close the room is!' fiercely exclaimed Sigismund Temple, abruptly rising and throwing up one of the sashes. 'One can scarcely breathe in it.'

'Hot and close in January!' said Sir Edward. 'What are you talking about?'

His brother muttered an unintelligible reply, and left the room.

'He is certainly ill,' thought the baronet; 'and if not better in the morning, Bailey *shall* see him.'

Holly Lodge, which Arthur Temple had prepared for the reception of his wife, was a convenient and pleasantly-situated house; and its equipment and embellishments, though excessively plain and simple in the eyes of the husband, accustomed to the gorgeous furniture and decorations of his paternal home, were magnificent in the estimation of the delighted bride, who saw, in the various articles of elegance and luxury with which the miniature drawing-room and her sleeping and dressing chambers were profusely filled, new proofs of the devoted affection which had raised her to such an unimagined height of grandeur. The simplest child, not only in knowledge of the world, but in the arts by which beauty enhances its value and secures its conquests, was this singularly beautiful girl. Her almost infantine delight in the novelty of her position, in the fairy treasures by which she was surrounded, and in the presence of her almost idolised husband, was intense, unbounded; and it was many days before a shadow, a light, evanescent shadow, flitted past and for a moment dimmed the young morning of her joy. One afternoon Mary Crawford found her standing before a high cheval mirror, which reflected her charming person at full length.

'Do you think, Mary,' she said, and there was a tone of inexpressible sadness in the gentle voice, 'that Arthur, my husband, will one day love me less than he does now?'

The question struck a painful chord in the more observant Mary Crawford's bosom, and the sudden vibration prevented her from instantly replying.

Lucy looked anxiously in her face. 'You do not speak?' she said.

'Is not that a sufficient answer?' said Mary Crawford, recovering her presence of mind, and pointing to the image in the glass.

'I was just then thinking, Mary,' was the reply, as the young wife redirected her glance to the mirror, 'that he must always love me.'

There was not the slightest conceit or vanity in the thought which suggested this remark. Poor girl! she was but examining the strength and brightness of the chain by which alone she felt she had compelled her husband's affections, and could alone hope to retain them. Mary Crawford kissed the blushing cheek, led her beloved friend and *protégée* to a chair, took a seat beside her, and passing with old familiarity one arm round her waist, said: 'And what, dear Lucy, has occurred to put such strange thoughts in your head?'

'Nothing—nothing, Mary, dear,' was the reply, though a faint sigh bubbled up and exhaled with the words. 'Nothing of moment; Arthur has been reading to me, and—and'—

'What, dearest?'

'I do not, you know, Mary, quite understand the grand poetry he so delights to read; but I love to listen to his voice; and to-day especially, it seemed a silver, lulling melody, like the murmured music of a brook amidst the trees, and with its harmony I—I fell asleep.'

'And your husband was angry?'

'No, Mary, not angry—vexed, that's all; and he is gone out alone.'

Mary Crawford, with an affectation of cheerfulness she did not feel, strove to laugh off the half-formed apprehensions of the ill-mated wife, and for the time succeeded.

The golden dawn, the purple light of love, which, in the imagination of Mr Temple, had for a brief space transformed the charming, gentle, but untutored country girl into a divinity, before which he would be well content to sacrifice the pleasures, honours, and rewards of the world in which he was born, and a high place in which he believed himself, with the aid of his influential relatives, able easily to attain, had gradually vanished before the chilling influence of familiarity, the sober teachings of disenchanting possession. His brother's prophecy had been accomplished even before the time he had assigned for its fulfilment. As unjust now as blindly infatuated before, Arthur Temple could find no charm, no solace, in the meek gentleness, the patient submission, the devoted affection, of the trusting woman he had sworn to love and cherish. Her simplicity wearied—her ignorance disgusted—her silent reproaches irritated and enraged him. He execrated the fetters in which he had madly bound himself, and each succeeding day but added to their galling, maddening pressure. His unfortunate wife had not been long able to conceal from herself that she was already, in the first blush and prime of wedded life, a widow in the saddest, most grievous acceptation of the word—estranged from her husband's affections, divorced from his future and his hopes, and her heart sank within her. But for the blushing hope, the tremulous vision, daily more intense and vivid, of a beauteous pledge of renewed love and peace, she must, she thought, have died. It came; and with it joy and hope, rekindling the faded roses of her cheeks, and rendering back her old gaiety of heart, her trustful tenderness for the father, forgiven in his son. Mr Temple seemed at first moved, softened, by the divine gift; but a few days sufficed to weaken, a few weeks to obliterate, the impression, and his manner to his wife became cold, disdainful, repulsive as before.

I will not dwell further on the cruel incidents of this most unhappy marriage. A year had passed; it was once more January, when Mr Temple received a letter from his brother Sigismund, written at Sir Edward Temple's instance, to request his presence at the celebration of the baronet's nuptials, so long delayed, with the Honourable Caroline Fanshawe. The note was brief and curt, and appeared to have been hurriedly and negligently scrawled. A postscriptum stated that Sir Edward was still ignorant of the *mésalliance* he, Arthur Temple, had formed.

The resolution long meditated by Mr Temple was, upon the receipt of this intelligence, at once adopted. An hour after it had been received, Mary Crawford, who for a long time had been the medium through which the wishes and commands of the husband had been conveyed to his wife, was summoned to attend Mr Temple in the front apartment of the groundfloor.

'I am about to leave this place,' began Mr Temple, 'and it is not likely that I shall very soon return.'

'Will your absence be much longer than usual?' inquired his auditor, observing that he hesitated. Mr Temple's very frequent absences at Bath and other places had usually averaged about ten days.

'Much longer: indeed I intend breaking up this establishment, and it is extremely improbable, therefore, that I shall ever return.'

'Merciful God! Why, what do you mean, Mr Smythe? You cannot intend to desert your wife—your child? No, no; it is impossible. You cannot be so base!'

'Have the goodness to remember to whom you are addressing yourself,' said Mr Temple in his haughtiest tone and manner. He presently added: 'It must have been for a long time clearly apparent to you that your friend Lucy and I are not suited to each other; that our tastes, feelings, associations, render us totally unfit for each other's society. This at least I have long and bitterly felt, and I have therefore determined, and as much for her happiness as my own, to leave her, and for ever.'

'Oh say not so—say not so!' exclaimed Mary Crawford with passionate entreaty. 'The blow will kill her. Be patient but for a few months, perhaps weeks: her health is gone, and she will not, I fear, trouble any one long. Be merciful—patient—till the grave has received her body, and the blighted spirit has returned to Him who gave it!'

Whatever emotion of remorse the husband might have felt, he effectually mastered and concealed. 'It is useless to waste words,' he said; 'my purpose cannot be shaken'—

'Hark!' suddenly exclaimed Mary Crawford: 'I surely heard Lucy's step! And yet I left her asleep—such broken sleep, at least, as lately has been hers.' She took a candle from the table, and stepped swiftly but softly to the door. There was no one on the stairs, nor in the passage. She did not think of looking into the adjoining room, separated only from the front apartment by slight folding-doors.

'I was mistaken,' said Mary Crawford, re-entering the room, and placing the candle on the table. 'Now, sir, proceed; and speak, if you please, as softly as may suffice for the due enforcement of your brave and honest purpose.'

'There need little more be said at present,' rejoined Mr Temple. 'I shall write in a day or two, and fully explain my views and intentions. In the meantime—and this is the most painful part of the affair—you must prepare Mrs Smythe as gently as you can to give up my son, who—Ha! What's that? Did you hear nothing?'

'I thought I did: a stifled scream or sob it seemed.' Mary Crawford stepped once more to the door, and looked out. Nobody was there. 'Go on,' she said; 'no one hears you—but God!'

'I have nothing more to observe,' he replied. 'A properly-authorised agent will be here in a few days, who will wind up and dispose of this establishment. Mrs Smythe will reside where she pleases, and of course will receive a sufficient sum to support her comfortably.'

'You carry this matter with a high hand, Mr Smythe; and your unfortunate wife must, I suppose, resign herself as she best can to your cruel will. But at least you will, I trust, inform us whom and what are the family into which Lucy Gaston has so unhappily intruded—a subject you have always carefully avoided? This, in common justice, you are bound to do, else death overtaking you, your wife will be without resource, or claim, or kindred.'

Mr Temple smiled, and said so very improbable a contingency would be

duly provided for. 'I have no further time to spare,' he added, 'as I wish to leave Bath by the mail-train, and must therefore bid you at once good-by.'

'Then go, sir!' replied Mary Crawford with wrathful vehemence; 'and may He, in whose temple you uttered the vows you have wantonly and infamously broken, avenge'—

'No—no—no!' burst convulsively from the lips of the abandoned wife, who, clad in her night-dress, and pale as marble, tottered through the folding-doors, and threw herself upon Mary Crawford's neck. 'Do not—do not curse him, Mary, for *my* sake!'

Mr Temple was painfully affected. He hoped to have avoided an interview with his wife, whom he could not but pity and respect, cold and dead towards her as his selfish affections had become. He knew not what to say; and a silence, save for the suffocating sobs of the two females, prevailed for several minutes. At length Mr Temple said: 'I was anxious, Lucy'—

'Leave me—leave me, sir!' hurriedly, almost fiercely interrupted his wife, her face still averted from him. Go—begone! We are true, and honest people, sir; and remember we do not want your money. Go—go! I would not that she cursed you, but begone!' And without turning her head, she waved him impatiently with her hand towards the door.

Mr Temple hesitated for an instant; and then resolutely nerving himself to go through with his predetermined purpose, left the apartment, and a few minutes afterwards the house.

'He is gone!' exclaimed the wife, erecting herself from the bent, listening attitude she had assumed. 'He is gone; and now to bed. We may be overheard here. You heard him say,' she added, sinking her voice to a deep whisper, 'that he would have my child. We will disappoint him, Mary! God has just shewn me how! Come—come—come!'

A terrible suspicion of Lucy's sanity, as these words, accompanied by a wild, triumphant expression of countenance, fell from her, arose in Mary Crawford's mind. She, however, yielded to the bereaved wife's example and earnestly-whispered injunction, and softly, softly ascended the carpered stairs on tiptoe. Whatever project had glanced across the mother's brain remained undivulged, or at least unfulfilled, for delirium rapidly supervened; and before a physician, hastily summoned from Bath, arrived, Mrs Smythe—Temple, I should say—was in a raging fever.

Mr Arthur Temple had quite recovered his equanimity when he stepped, at the Bath station, into a first-class carriage of the mail-train; and as he was whirled along, he amused himself by calculating the chances and probabilities of the new life he had marked out for himself—one of politics, of active ambition, resulting in office, honours, substantial rewards—when a sudden crash, a cry of terror and despair, an overwhelming sense of dismay and horror, flashed upon him; and he remembered nothing more till he found himself in one of the gorgeous bedrooms of his brother's house in Grosvenor Square. The collision of the train with a luggage-truck near the Reading station had resulted in the instantaneous loss of several lives, and such severe internal injuries to Mr Temple, that saving his life was out of the question. Robson, who travelled with him, was unhurt, and had caused his master to be brought immediately to London.

Fortunately Dr Bailey happened to be in Grosvenor Square when the sufferer arrived; and the intelligence was consequently broken gradually and skilfully to Sir Edward Temple. Even thus communicated, it produced a very distressing effect, and but for prompt appliances might have proved fatal. The baronet was immediately confined to his bed, and never saw his brother again in life, communicating only with him through Sigismund Temple.

The first thought of the younger brother, on ascertaining the fatal nature of the accident that had befallen Arthur Temple, was that Sir Edward's marriage would be necessarily deferred—he hoped for ever. A natural emotion of compassion succeeded, soon chased away by the thronging hopes his eager imagination conjured up. The dazzling Caroline! abundant wealth!—all this might now be his! Who knew?

For several days Arthur Temple writhed and tossed upon his bed of down—the mild eyes, the kind voice, the gentle, sympathising hand—pressure of his abandoned wife revisiting him in his troubled, fevered dreams, only to mock him as with the mirage. At last the grim Tyrant passed through the closed and muffled portals of the splendid mansion, glided up the grand staircase, and entered the gorgeous chamber. Dr Bailey and Sigismund Temple were in the room when the shadow of the viewless victor fell upon the sick man's face. The physician observed the sign, and knew its meaning. He placed his fingers on the patient's pulse: it fluttered—sank—stopped; then came a brief rally, and all was over!

A few hours after this solemn event, Sigismund Temple was sitting alone in his dressing-room, with a foolscap sheet of paper closely written upon, held loosely and carelessly in his right hand. His dark eyes were unusually vivid, and on his pale expressive face a practised observer might have read strange matters. 'Deathbed repentances!' exclaimed the excited young man in a strange, low, beating voice—'deathbed repentances, I have heard bishops preach, are seldom of any value—rarely do much to repair the errors, sins, or crimes of a life. It would not be seemly,' he added, whilst a bitter sneer curled his white, finely-chiselled lips—'it would not be seemly that Arthur's tardy generosity or justice—exercised at my expense, too, which makes it all the more pleasant—so suddenly resuscitated by the near view of a tomb yawning for himself, should, through my instrumentality especially, be made to give the lie to so salutary and grave a maxim. This paper now,' he resumed, after a brief pause, 'written by me at his dictation, not only deprives me of fifteen hundred pounds per annum which I else inherit—that, however, were nothing, should another frail life fall in—and reveals the existence of the now widowed wife, but that of the son, the presumptive heir to the baronetcy, with its attendant wealth. It is therein the serpent-danger lies, which I must crush—crush—crush—at any hazard'—as he thus spoke, he fiercely crumpled up the paper in his hands, as if at the moment he grasped the menaced peril by the throat—at any sacrifice! It was fortunate,' he soon more calmly continued—'it was fortunate Bailey came in too late to witness the signing of the paper, or even to hear it spoken of. My good brother evidently, at the last moment—thank Fortune, not before—doubted my good faith; but Bailey could not read aright, as I plainly did, that last glance of agonizing remorse, doubt, and entreaty. So far, then, I am safe. Let me again,'

said he, smoothing the paper carefully out—‘let me again peruse the precious document:—“In the name of God, Amen.” It is really wonderful,’ continued Sigismund Temple with a mocking laugh—‘it is really wonderful how the illusions and dreams of childhood revisit men in their last hours! The bishops are quite right. The only valid faith is that of the pious believer, who recognises God in life. In death, he is, if there be one, sure to be self-revealed, and acknowledgment is puerile—absurd—not to say impious. This name,’ went on the sneering scoffer—‘this name, thus used, confers then no character of sacredness upon the paper! But let me read on:—“I give and bequeath unto my beloved wife”—— Beloved wife! Why, this is mockery upon mockery! He surprised her affections—stole, as it were, her heart away, to toy and sport with for a time; and, his pride and fancy sated, cast and trampled it beneath his feet as a thing of naught—and then, forsooth, when the world for which he abandoned her is vanishing from his sight, she is his “beloved wife” again! Out upon such hypocrisy!’ he added, rising from his chair, deliberately tearing the paper into strips, and consuming each strip at a taper which stood lighted on the table. ‘Out upon it! And that he should think, too, that I would be a party to it! That assuredly is not the least amazing or amusing part of the affair. He could scarcely, I think, have read my character so perfectly as I did his: it is certainly nothing new to find men indulging in excessive liberality when the cost thereof is to be defrayed by others: albeit I must, however regrettingly, decline honouring this draft on my generosity, and instead dispose of it thus—and thus;—and so a long good-night to Marmion!’

Sigismund Temple reseated himself as soon as the last shred of paper was consumed, and remained for several minutes in silent cogitation. ‘Well remembered!’ he exclaimed, again rising and ringing the bell; ‘that rascal Robson must be spoken with. Send Robson, my late brother’s servant, to me immediately,’ he said to the footman who answered the summons. ‘For the present,’ he muttered, when the door had closed, ‘if, as I think I know the man, a slight hint will suffice; hereafter I can, if necessary, proportion the reward to the service.’ A tap came to the door, and on receiving permission, Robson entered.

‘You will continue to observe the strictest secrecy with respect to the unfortunate marriage you witnessed,’ observed Mr Sigismund Temple, addressing the discreet, taciturn groom. ‘I intend taking you into my own service; but your remaining in it will of course depend upon your own behaviour and discretion. I shall make all proper arrangements, you may be sure; but the less so absurd an alliance is talked about the better for our honour and your interest.’ Robson acquiesced by a respectful bow; and no more was said upon the subject.

‘It is your opinion, then,’ remarked Sigismund Temple to Dr Bailey a few days after his brother’s funeral, ‘that Sir Edward has fairly outlived the tendency to pulmonary disease which so alarmingly displayed itself some time since?’

‘Nay, my young friend, I do not go so far as that: besides, the chief danger is from an affection of the heart, which both he and his sister Marion suffer under, and which may carry either of them off at a moment’s warning.

I have merely said that if Sir Edward adopts a strict regimen, and, above all, is careful to avoid any sudden and painful shock or agitation, he may live many happy years.'

'This is not precisely the report I understood you made to Lord Fanshawe. But that, I daresay,' he added bitterly, 'is of slight consequence. The lady no doubt marries the brilliant fortune, not its ailing possessor.'

'You greatly misapprehend Miss Fanshawe's character,' replied the physician. 'There are few persons, I believe, less mercenary in any objectionable sense of the term. Quite true that she would not unite herself—that it would never glance across her mind to unite herself with a man who was not rich and occupying a distinguished position. Situated as she is with regard to fortune—for the estates, you know, are entailed on the heirs-male, and Lord Fanshawe lives quite up to his income—and with her habits, tastes, and requirements, to do so would be to commit an act of mere suicidal folly. She would as soon think of marrying one of her father's footmen. But I am at the same time equally sure that no establishment, however splendid, would for a moment tempt her to a union with either decrepitude, vice, or folly.'

'You speak warmly, Dr Bailey.'

'Because I feel warmly, Mr Temple. There is no one for whom I have a higher respect than for Miss Fanshawe. She is a thoroughly well-principled, admirable young woman. Conscious of course she must be of the divine gift of beauty the Creator has bestowed on her; but there is not a particle of silly vanity, or of a desire to test its power by the infliction of pain, in her composition. You, Mr Temple,' added the physician in a more indifferent tone, 'and Caroline Fanshawe are very similarly circumstanced, and from the same causes. The wealth which might, and perhaps should have been divided with something like equality between your families, has been diverted and confined to maintaining the representative of each house in dignified splendour; and in accommodating yourselves to your positions, you are both justified in availing yourselves of every means in your power, not involving meanness or dishonour, to improve your fortunes.'

'An evil system,' said Sigismund Temple; 'the prolific parent of every species of hypocrisy and fraud.'

'Well, I do not know. There is *pour et contre*. One does not clearly see how else a powerful class of landlord nobles could be permanently maintained; and that has long been held in this country to be a matter of prime necessity. Misery enough it involves, I grant you, especially to highly-born females, few indeed of whom are so personally gifted as Lord Fanshawe's daughter. She will always be able to command an eligible establishment, even should Sir Edward's health, which is quite possible, shew symptoms of relapse before the expiration of the new delay which your brother's death has thrown in the way of the contemplated marriage. But younger brothers, such as you, who have peer or parliamentary influence to back them, will always be pretty safe in this rich and industrious country. You, for instance, are quite sure of getting your head into the national manger to the tune of two or three thousand a year, irrespective of any or whatever talents you may be found to possess. Your

relatives are bound in honour and conscience to see you provided for to that extent, if not more.'

'It may be as you say. You think, then, that a relapse would be fatal to Sir Edward?'

'I have not the slightest doubt that in that case I should have the honour of saluting *Sir* Sigismund Temple, Baronet,' rejoined the physician, with a meaning, half-ironical expression of eye and voice.

The ringing of the dinner-bell interrupted the colloquy. Dr Bailey took his leave, and Sigismund Temple, after a few minutes' silent cogitation, descended to the dining-room. The next day he set off for Somersetshire.

Mrs Temple, as we must now call her, was but partially recovered from the sharp illness by which she had been attacked, when Sigismund Temple arrived at Holly Lodge with the intelligence of her husband's premature and shocking death. His real name he still, of course, carefully-concealed. The sudden announcement caused a renewal of her disorder; and several weeks passed before Dr Bainbridge pronounced her convalescent. Her little boy, too, pined, and seemed falling into a bad way; and Sigismund Temple half-hoped that the widow and child would, after no great delay, follow the husband and father. He rejoiced to find that neither Mrs Temple, nor her companion Mary Crawford, had the slightest suspicion of the true rank or position of his deceased brother; and he smiled to think that, other obstacles in his path to high fortune removed, the claims of Mrs Arthur Temple and her son need not disturb him much, as he would manage. He remained several days at the Lodge—affected the greatest sympathy for the suffering widow—was very liberal of present pecuniary aid and future promises—and very gracious and condescending towards Mary Crawford, to whom, at parting, he made a munificent present. Mary being a sharp-witted person, and just then naturally mistrustful of the honour and good faith of any one bearing the name of Smythe, it is no wonder that a vague distrust of the motives which could prompt such a gift glanced dimly across her mind. She took care, however, that no outward indication of this feeling should escape her; and Mr Temple, after receiving her promise to write to him should anything of importance occur, directing her letter to Mr James Smythe, Post-Office, St Martin's-le-Grand, to lie till called for, he departed for London, well satisfied with the result of his visit to Somersetshire.

Obscuring clouds soon gathered over his brilliant hopes. The health of Sir Edward Temple continued obstinately to improve; and at the end of four months from the death of Arthur Temple, a day was again fixed for the celebration of his nuptials with Miss Fanshawe. A few days previously to the one named for that purpose, there was a somewhat numerous dinner-party in Grosvenor Square, at which Sir Edward presided in apparently florid health and in jubilant spirits. Sigismund Temple, in whose bosom a hell of envy, hatred, and despair was raging, left the apartment, soon after the company had assembled in the drawing-room, under the plea of headache.

'I wonder,' remarked the baronet, 'how it happens that Marion is not arrived. She should have been here two hours ago, according to her letter received yesterday.'

'This is about her usual time for leaving Devonshire, is it not?' Miss Fanshawe remarked.

'Yes; and her non-arrival is the more surprising, as her letter states that her health seems quite re-established.'

'Something may have occurred to delay her departure,' said Dr Bailey. 'By the way, Sir Edward,' the physician added *sotto voce*, and drawing the baronet quietly apart, 'you are very much and dangerously excited. You drank, I observed, two or three glasses of wine at dinner more than you have accustomed yourself to take; and what with that, the expectation of your sister's arrival, and Miss Fanshawe's presence, your pulse is beating, I know, at a fever pace. Pray endeavour to calm yourself.'

Sir Edward promised that he would do so; and returning to the ladies, took a chair beside his beautiful betrothed, and resumed a topic upon which they had been previously conversing.

Sigismund Temple paced up and down the conservatory at the back of the house with wild disordered steps, and it was long before he succeeded in mastering the outward signs of the tempest which raged within him. When he had done so, he determined on returning to the drawing-room. His absence might, he thought, be remarked upon; for he had a strong suspicion that Dr Bailey, if not Caroline Fanshawe herself, had penetrated his secret. He had reached the foot of the stairs, when a double, and by no means fashionable knock, was heard at the outer door. On its being opened, an elderly person, having the appearance of a country clergyman, entered, and offering a card, desired to speak with Sir Edward Temple or his brother. The servant presented the card to Sigismund Temple, who, glancing at it by the dim light of the hall lamp, read the name of the Rev. Mr Benton, whom he had not, in the partial obscurity, for the moment recognised.

'You are the bearer of ill news, I fear, respecting my sister Marion?' he said hastily.

'Alas! yes, sir. That amiable young lady, I grieve to say, suddenly expired yesterday afternoon.'

'Good God! is it possible?'

Sigismund Temple was greatly shocked. He had long since ceased to feel any affection for his half-brothers; but Marion was a meek, gentle creature, and almost as ill-used by fortune as himself. He led the way to the library, invited the Rev. Mr Benton by a gesture to be seated, and whilst that worthy divine ran over the commonplaces usually uttered at such times, remained standing with his back to the speaker, gazing out upon the dark, starless night. It was some time after the pious clergyman had concluded his stock of homilies, that Sigismund Temple turned suddenly round and faced him; and then his countenance wore so strange, so wild an expression, that the reverend gentleman was quite startled by it.

'Ah, sir, you loved your sister fervently! But death, as I have before remarked, has his sad preferences, and does not always choose'—

'Yes—yes!' interrupted the good man's impatient auditor in a shaking, husky voice—'yes, yes; of course; no doubt; but there are others besides me to whom I suppose you wish to break this intelligence?'

'Certainly: to Sir Edward Temple especially. A personally-delivered

message was, I thought, desirable, in order that the melancholy announcement might be more tenderly—less abruptly made than by letter.'

'Precisely: this way, then, if you please. Yonder,' continued Sigismund Temple, standing at the foot of the stairs, and speaking in the same low, quivering tone—'yonder is the door of the drawing-room. Go in and deliver your message: Sir Edward is there.'

The clergyman bowed, and ascended the stairs. The younger brother remained standing in the partially-lighted hall, every faculty strained in eager expectation of what might follow.

Sir Edward Temple was still conversing in a low tone with Miss Fanshawe, when the door opened, and admitted the short, plump figure of the Devonshire rector. The sudden blaze of light seemed for an instant to dazzle and bewilder the new-comer; but quickly recognising the baronet, he stepped briskly forward, and ceremoniously accosted him. The recognition was mutual. Sir Edward started to his feet with an exclamation of surprise and alarm, and Miss Fanshawe remarked that a deathly pallor instantly overspread his previously flushed and animated countenance.

'Do not unnecessarily alarm yourself, Sir Edward,' began the flurried clergyman; and then plunging at once into his preparatory exordium, he said: 'Death, my dear sir, has his sad likings, and——'

'Death!—death!' echoed the baronet with a scared look, and his chest heaving convulsively—'death! who speaks here of death?'

'Speak to Dr Bailey,' whispered Caroline Fanshawe to a young lady by her side. The physician was talking vehement politics with Lord Fanshawe at the further end of the apartment, and had not observed the clergyman's entrance. 'For Heaven's sake, Sir Edward,' she added, taking his hand, 'strive to be calm!'

'Death!—death!' repeated the baronet, his wild, glaring eyes still fixed on the countenance of the intruder. 'What has he to say of death?'

'Death, I was saying,' resumed the clergyman, 'has his strange caprices, and does not always wait till our blood is cold, and our hair gray, before he strikes. Your amiable sister Marion'——

A spasmodic scream burst from Sir Edward Temple, and his right hand at the same moment grasped his left side with convulsive force.

'Your sister Marion, I deeply grieve to say, expired suddenly yesterday afternoon.'

The sudden shriek, terminated by a convulsive sob, was feebly repeated; the stricken man half turned towards his beloved Caroline; his nerveless hands strove to grasp hers, but missed their hold; a slight tremor shook his frame, and he fell back in the arms of Dr Bailey—stone-dead!

'You need not remain,' said Sigismund Temple, who had hurried into the apartment, addressing the terrified and bewildered clergyman, 'I will see you in the morning.' The reverend gentleman gladly complied with the intimation; and early the next day set off on his return to Devonshire, after a brief business interview with Sigismund Temple, much discomposed by the unhappy result of his well-intended mission.

About a month subsequent to the baronet's decease, Sir Sigismund Temple's dressing-room bell rang for the third or fourth time with great violence. He had just returned from Bath, and appeared to be in a state of great and pleasurable excitement. 'Is Robson returned yet?' he began,

as the door opened. 'Oh, there you are at last! And pray, sir,' continued the young baronet, drawing himself haughtily up to his full height, and beating down with his confident, contemptuous stare, the at first insolent look of the groom, 'how dare you absent yourself from my service without leave?'

'Without leave! You forget, *Sir Sigismund Temple*'—rejoined the man, with returning confidence.

'I forget nothing,' interrupted the baronet, and am blind to nothing. 'Hark'ye, rascal! you believed me to be in your power, and to a certain extent I was, and you might perhaps have made your own terms. Your day is, however, past; and without the slightest apprehension of anything you could do or say, I might this instant order you to be turned into the street, without a character, to beg, steal, or starve, as your fancy dictated. ~~Look~~ here,' added Sir Sigismund, taking a newspaper from his pocket, and pointing to a particular paragraph. 'Do you see that?'

The man's countenance fell, and he stammered out some apologetic sentences. 'Leave the room,' was the curt answer. 'Yet stay: you may yet deserve my favour. I am still unwilling, for certain reasons of my own, that my deceased brother's degrading though abortive alliance should be published to the world. You may, therefore, retain your situation, upon the precedent conditions of silence and discretion, although anything you could say would, as you well know, be, as matters have fortunately turned out, of no importance. Now go, and send Edwards to me.'

On the third day after this scene occurred, John Whiston had set out early in the morning on horseback, to attend a sale of farming-stock at some considerable distance from his home. The weather was warm, the ride fatiguing, and on his return he made a halt at Plymouth to refresh himself with a glass or two of brandy and water, and talk over the news; for Master Whiston was a warm politician, and regularly took in 'Bell's Messenger,' which he generally contrived to get through during the week from title to imprint. Corn-law-repeal politics were just then in the ascendant; and the interesting subject induced Mr Whiston to prolong his stay considerably beyond his usual hour. He had exhibited no sign of departure, when the stout landlady of the Nag's Head informed him that William Carter demanded speech of him. Carter, by the way, was not the name of the man, but of his vocation—a custom in those parts. Honest John hastened out to inquire the motive of so unusual a summons; for Susan, satisfied with domestic supremacy, had always scrupulously abstained from interfering with or disturbing her husband's hours of social enjoyment.

'Be anything the matter, William?' he anxiously inquired.

'I doant rightly know,' was William's reply; 'but missus have been in a terrible frustration from soon after you went this morning.'

'Baby beant come—but no, that wont be this month or so. The missus is well?'

'Not particular so in temper. We've all, men and maids, had a terrible hurrying time of it since the postman called; so we've set it down, especially as butter is well up in the market jest now—to some crossish news brought in a letter.'

Master Whiston was soon mounted, and galloping sharply homewards, followed by William Carter. On his arrival at Vale Farm, a few words from his wife, who appeared much excited—greatly to the alarm of her mother, who had not ceased to insist during the day upon the primary duty of looking to one's own health and welfare before other people's—explained everything. The letter was from Mary Crawford. Lucy was still very ill, she feared dying, and circumstances, which she would hereafter explain, had determined them to return to Vale Farm at once, and Mary Crawford hoped that Susan's husband would come to them immediately.

'You must set off at once, John,' said Mrs Whiston.

'Surely—surely; but where will ye put them, now mother is with us?' Susan's father, a small farmer of the neighbourhood, had died not long before, and the widow had of course taken up her abode at Vale Farm.

'Oh, Susan has settled all that!' said Mrs Durnford angrily. 'All the first floor, bless you—and the large front bedroom—and the four-post bedstead, with the best chintz hangings—and fires blazing away enough to roast an ox, as if there could be any damp in this weather. I suppose Susan herself will have to put up with a back-room, or perhaps a garret, for aught I know.'

'God bless thee, Susy!' said the honest yeoman as he kissed his wife. 'Thee be always right, and kind, and good, and sensible. And God *will* bless her, mother, whether she lies down to rest in a garret or a palace.' Susan had prepared everything for her husband's departure; and he was soon galloping back to Plymouth, from whence he started per mail.

Exactly a week elapsed before Master Whiston and party returned, so slowly did Mrs Temple's weak state compel them to travel. Once, however, restored to her old and true friends, and the familiar haunts and genial air amidst which she had passed her youth, a speedy change for the better took place: little Arthur, too, improved marvellously in health and appearance, and Mrs Temple's spirits gradually regained their old tone. Brighter and brighter gleamed the lately sorrowful and downcast eyes; more and more vivid grew the flush of health and hope upon the lately pallid cheeks; and autumn had hardly passed away before the thin and wasted form had recovered its flowing, graceful outline, and Lucy was herself again!

'You never rightly told me, though you have often been going to do so, Mary,' said Mrs Whiston, late one evening in the ensuing winter, as she and her cousin were sitting up waiting for John Whiston, who had gone to an agricultural dinner, 'about what that fellow, that James Smythe, wanted you to do for all the money he gave you. Suppose you tell me now: Lucy and mother are both asleep, so that nobody but I shall hear you?'

'I am almost afraid to talk of it,' said Mary Crawford, turning quite pale; 'and, perhaps, I may have wronged him—have misunderstood his dark hints—and yet'——

'Why he did not surely wish you to'—— Mrs Whiston's tongue refused to utter the terrible words her imagination suggested.

'I will only say this,' said Mary Crawford in a more composed tone than before, 'that I was so terrified by his hints, and half sayings, and strange looks, and constant gifts of money, that I discharged the servants; and the

next time he came to Bath on one of his flying visits—latterly he always sent for me to meet him there—I told him—I had written a day or two before to say the child was very ill—that Arthur was dead !’

‘Gracious Heaven !’

‘You should have seen the look, Susan, which flashed out of his large dark eyes. It was enough to blind one ; and yet I thought there was remorse and regret as well as triumph in it. Over and over again he made me repeat the story ; how, where, and at what hour the child died. He fully believed it, and had it put in the Bath paper. God forgive me, if I wrong him, but it is my firm belief that he believes to this day I made away with the child, in return for his bribes ! He made me a larger present than ever,’ continued Mary Crawford, ‘which I freely accepted, believing, as I did and do, that the money rightfully belonged to Lucy. He thinks she is gone to live with a distant relative in Sussex ; but he will not cast about to do *her* any harm, now that he believes her son is gone. The furniture of Holly Lodge was to be sold ; and he told me the proceeds should be paid over to me, for Mrs Arthur Smythe’s use, whenever I chose to apply for it, directing to him as usual. He also, I must say this for him, said he was anxious to provide handsomely for his brother’s widow, and hoped that no scruple would be felt in applying to him for any sums, no matter how large, in reason of course he meant, which she may require.’

‘Why, what *can* be the meaning of it all, Mary ?’ said Mrs Whiston, who had listened with pale affright.

‘That is a question I have thought a good deal of lately,’ replied Mary Crawford. ‘I would not, I am sure, willingly misjudge the man ; but I do think little Arthur is entitled to some large property in right of his father, which that man is determined to keep him out of by any means, however desperate and wicked ; and I think some inquiry ought to be made without further delay.’

‘Inquiry !’ exclaimed Mrs Whiston, ‘and so endanger the poor child’s life, and perhaps Lucy’s, without probably doing any good whatever.’

‘I will tell you, Susan, how I have been thinking we may set about it with perfect security. You remember what Lucy told us her father said to her about Lord Fanshawe’s daughter, who, I see by the paper, is to be shortly married to Sir Sigismund Temple, a great baronet ?’

‘To be sure I do : what then ?’

‘Well, why not forward that parcel of letters to her ? She will perhaps get her father, the lord, as Lucy is her first-cousin—just as nearly related to her as you are to me—to employ a clever London lawyer in the business. If he could only ferret out that Robson, something might be discovered.’

The more this purpose was debated, the more likely and feasible it seemed ; and by the time John Whiston reached home, it was agreed that Lucy should be induced to forward the parcel as directed, with an explanatory letter from herself. Mrs Temple readily agreed, and the important missive was despatched.

The reply was prompt and gracious. A letter arrived by the earliest possible post from Lord Fanshawe, enclosing another from his daughter, expressing the liveliest sympathy for their relative, and a good deal blaming her for not having made herself known to them before. Both Lord Fanshawe and his daughter had been, it was very apparent, greatly moved by

Lady Fanshawe and Mrs Gaston's letters, Caroline especially; and she vehemently insisted that Lucy, Mrs Smythe, should immediately take up her abode in Cavendish Square. Lord Fanshawe's solicitor was to have immediate orders to prosecute a vigorous inquiry respecting the family and property of her late husband; and it was announced, in conclusion, that his lordship's butler would arrive at Vale Farm on the day following that of the delivery of the letter, in order to escort Lucy and her son to London.

This was much more than the Whistons or Lucy herself either expected or desired. They were as unwilling to part with her as she was to leave them again. Still, refusal was out of the question, if only for Arthur's sake; and Lucy with her son, and indispensable Mary Crawford, departed amidst a shower of tears and blessings, on the day after the morrow, under the charge of Lord Fanshawe's butler.

Lucy and her little one received the warmest welcome from her brilliant cousin; Lord Fanshawe also was kind and patronising. Both father and daughter were evidently alike surprised and pleased by the remarkable beauty of their newly-found relative. Caroline Fanshawe saw in a moment that Lucy's natural elegance and grace required but little conventional polish to render her not only fit to mix with, but to shine, a bright particular star, in the world of fashion. Masters were immediately engaged to supply the deficiencies of her neglected education, and Miss Fanshawe predicted a brilliant future for her, irrespective of any fortune to which she or her son might be entitled from those odious Smythes. That, however, was a matter not to be neglected; and Mr Rushton, Lord Fanshawe's solicitor, received immediate instructions upon the subject.

The position of Sir Sigismund Temple had, in the meantime, become a dazzling one. He had not only succeeded to one of the richest and most ancient baroncies in England, but infinitely higher fortune, as he thought—the beautiful, magnificent Caroline Fanshawe would, there was little doubt, be his wife before many days were past! His passion for that lady amounted almost to idolatry; and without her he felt that station, wealth, honours, would be for him mere dross and rags, foully as he had ventured for them. His anxious assiduities had long since been marked and unrishtakable; but the requirements of decorum, and the usages of society, necessitated that many months should elapse after Sir Edward Temple's death before he could appear as an ostensible suitor for the hand of the lady once destined to be that brother's wife. At length, just about three weeks previous to Lucy's arrival in Cavendish Square, Sir Sigismund had been urged to a yet somewhat precipitate declaration by the pointed and well-received attentions of a young and wealthy viscount. On the same day, and nearly at the same hour, a similar proposal reached Caroline Fanshawe from the viscount; and there was some doubt and hesitation as to which should be accepted. She gave interviews to both suitors, cold, somewhat formal ones, in the presence of her father; and with the proud candour which distinguished her, promised each of them that she would seriously weigh and consider all they had urged, and that Lord Fanshawe would communicate her decision in a month from that time. From a hint afforded Sir Sigismund by his lordship, in a subsequent private conversation, that gentleman felt little doubt as to whom the choice would fall upon. To cheat the lazy-

footed time, as well as to somewhat calm the tumult of emotion by which he was shaken, the young baronet passed the agitating interval in hurrying from place to place, accompanied only by his servant Robson: He crossed over to France; returned; was off to the Highlands; back again, and away to Wales—as if he thought rapidity of motion and change of scene would hasten on the creeping hours.

Was this wild fleeing to and fro, it may be asked, caused solely by the feverish restlessness, the morbid impatience, of a consuming passion? We may be sure it was not: that the beckoning shapes, the calling shadows, which he vainly endeavoured to outstrip and banish from his sight by frequent and rapid change of scene, were not forms of light and loveliness, not the brilliant exhalations of a lover's fervid fancy. The wild force, the burning intensity of his passion for Miss Fanshawe, but gave articulate significance to the suggestions of an excited conscience—to the else confused spectre-whisperings which menaced the bright Future with the dark Past. If it were true that the Avenger of Blood walked the earth to visit deeds unseen of men with retribution, would He permit him to clutch the prize remorselessly played for, and for which he, Sigismund Temple, would again play, on the same evil and desperate chance, a thousand times over? How vulnerable he was!—how dark, fathomless, and terrible the gulph which stretched beneath the lofty and dazzling pinnacle upon which he trembled—ever shuddering with undefined apprehension lest the unseen hand, which his morbid imagination pictured as extended over him with menacing gestures, should suddenly hurl him into the black void! The night vision only more distinctly shadowed forth the fearful day-phantasy! Ever when about to clasp that form of unmatched beauty, it changed to the stern likeness of one of his dead brothers—of Sir Edward oftenest, with his pale solemnity of face and outstretched finger, ever pointing to the splendid mausoleum of the Temples, where the dreamer always perceived that another richly-decorated coffin had been placed since he last stood there, but the inscription upon which he could not read. His union, then, he mentally argued, with Miss Fanshawe could alone dissipate these fancies, by proving them to be the mere idle coinage of an excited brain—phantasms which, till that great hope were consummated, might have power over him, but not one moment longer.

The seemingly interminable period of suspense and fear was at length all but passed, and the day before it expired, Robson arrived at the mansion in Cavendish Square, with a letter from Sir Sigismund, whom he had left at Bath. The reply was an invitation to the baronet from Lord Fanshawe to dine with him the next evening *en famille*, when he would be received as his lordship's future son-in-law. Robson was to remain in London, but the letter he had strict orders to forward by a special messenger to Bath, the instant it reached his hands.

Mr Rushton, the solicitor, was in the library when Robson called, where he had been for a considerable time engaged in listening to Mary Crawford's account of Lucy's marriage, desertion, the death of her husband, and subsequent strange and suspicious conduct of the deceased's brother, Mr James Smythe. He was sitting alone, silently pondering the matter, when Lord Fanshawe entered, and after a few minutes' conversation relative to the 'Smythe' affair, said: 'You will be wanted in a day or two, Rushton, to

receive instructions relative to a marriage-settlement, of which you must prepare a draft for counsel's approval. There will be no great difficulty, as Sir Sigismund Temple gives me *carte blanche* to insert what sums and conditions I please.'

'Sir Sigismund Temple! Then the lying jade Ramour has spoken truth for once.'

'Yes: Robson has just now received an acceptance of the baronet's proposals. Sir Sigismund is at Bath.'

'Robson!—Robson!' ejaculated the solicitor, with a sudden flush of his pale face. 'What is he?'

'Sir Sigismund Temple's favourite groom. Why do you ask?'

'Oh nothing, nothing,' replied Mr Rushton, as carelessly as he could. 'I thought I knew the name, that's all. When do you expect Sir Sigismund will arrive in town?'

'He will dine here to-morrow evening at seven, and I expect will come up two or three hours before by the express train.'

Shortly afterwards Lord Fanshawe went away, and the solicitor, immediately he was alone, took down a Baronetage from one of the shelves, and eagerly turned over the leaves. 'Very odd coincidences,' he muttered, after a few minutes' perusal of one of its pages; 'at all events, Mr Arthur Temple died at the same time, and by the same accident as this reputed Arthur Smythe. The woman's description, too, of the brother, remarkably corresponds to—— Then the groom Robson—— This must be looked to at once.'

Amongst the persons awaiting on the following day the arrival of the express train at the Paddington station were Mary Crawford, closely muffled up and veiled, and Mr Rushton. They kept back out of view as much as possible; and the solicitor, upon the signal being made that the train was at hand, whispered to his companion: 'Now mind and look sharp at the passengers, and tell me if you see Mr James Smythe.'

'That is he!' exclaimed Mary Crawford, with repressed anger, and pointing to a fashionably-attired gentleman hastily alighting from one of the carriages. 'That is Mr James Smythe!'

'I thought so,' said the solicitor, 'from Robson's silence and confusion: he will speak out now probably. That gentleman,' he added, 'whom you call Smythe, calls himself Sir Sigismund Temple.'

A carriage was in waiting for the baronet, in which he immediately drove off homewards; and the cab which conveyed Mr Rushton and Mary Crawford was a few minutes afterwards tearing along in the direction of Cavendish Square.

The triumphant lover trod on air as he ascended to his dressing-room to prepare for his visit to Lord Fanshawe. There was an admirable portrait of the beautiful Caroline in the apartment, which had been painted for his brother Sir Edward. Sir Sigismund's dark eyes lightened with rapture as he gazed upon it. 'Mine—mine—mine—beyond the power of chance!' he exclaimed. 'Oh, what are kings or emperors to me!' and his stormy joy laughed out in a wild burst of mirth. It was, however, necessary to calm himself somewhat, and by a strong effort he did so. 'Send Robson to me,' he said to a valet who answered his bell: 'I wish to speak with him.'

'He was sent for by some one about two o'clock to-day, and has not since returned,' replied the man.

'That is strange behaviour. But come; it is time that I should dress.'

His toilet was accomplished; but it was yet much too early to proceed to Cavendish Square. He intended arriving there half an hour before the time appointed for dinner, in the assured expectation of then finding Miss Fanshawe alone in the drawing-room. It was still only half-past five, albeit evening had long closed in. Restless, perturbed, excited as he was, immobility, quiet, inaction was impossible. A fancy seized him; he would while away the lingering interval by a gallop. Saddle-horses for himself and groom were immediately ordered round: he mounted, and in his flurry and excitement of spirit dashed with fierce speed towards Oxford Street, and then on in the direction of Bayswater. He rode on for between four and five miles, turned, came back at the same pace, and arrived, flushed with the exercise, in Cavendish Square.

There were lights in the drawing-room, and he discerned a female figure there, and only one. He eagerly alighted, threw the bridle to his groom, but without pausing to give him any order to stay or return home, and the next minute was bounding up the stairs, his pulse throbbing, and his eyes on fire with excess of emotion.

The lady he had indistinctly discerned through the muslin curtains of the drawing-room was bending over some object hidden by her figure, which he could alone see, her head, from the stooping attitude, being invisible to him. The thick carpets prevented his steps from being heard; and he, nothing doubting that Caroline Fanshawe was before him, rushed forwards, and threw himself at her feet, exclaiming, in the broken, vehement tones of passion, 'Caroline—beloved—adored!'—

A cry of alarm escaped the lady as she turned, and disclosed to the thunder-stricken man at her feet the well-remembered features of Mrs Temple—of his dead brother's wife! And there, too, he recognised instinctively, was her son, whom he had believed dead—hers and his brother's son, over whom she had been leaning.

A fierce, irrepressible cry burst from him as he sprang up, white with terror, and staggered back from before the appalling vision by which he was so suddenly confronted. 'Merciful God! Speak—when—for what purpose—how—why is this?' he gasped with wild incoherence.

A door at the further side of the spacious apartment was thrown sharply open, and Lord Fanshawe and his daughter hurried in, followed by Dr Bailey, Mr Rushton, and Mary Crawford. Robson, too, was there, but he remained in the doorway, as if uncertain whether or not he was expected to follow. The completeness of his ruin flashed at the sight instantly upon Sigismund Temple: he comprehended everything; and although a tempest was sounding in his ears, he could discern through all the still small voice proclaiming that judgment, fatal and irreversible, had fallen upon him. His fiery look became almost immediately rivetted upon the countenance of Miss Fanshawe. He there read painful emotion—regret—compassion, but also disdain—resolve. 'Miss Fanshawe,' he cried with a choking voice, as he sprang forward and caught her dress, for she had turned to leave the apartment—'Caroline—hear me but one word—but one!'

The lady turned half round, looked fixedly at him for a moment with a

mingled expression of sorrow and contempt, then gently but firmly disengaged her robe, and with a sad but peremptory gesture of farewell, passed on.

'My note, which must have been delivered in Grosvenor Square nearly an hour ago, should have prevented this unpleasant scene. I little expected to see you here, Mr Temple, after its perusal,' said Lord Fanshawe, in his coldest, haughtiest tones.

'It is also right,' said Dr Bailey, 'I should inform Mr Temple, that, in addition to what his lordship has discovered relative to this lady and her child, I have thought it my duty, under present circumstances, to acquaint him with a fact which sometime ago came to my knowledge relative to Sir Edward Temple's death. My informant was the Rev. Mr Benton. Mr Temple will not be at a loss to understand my meaning.'

Sigismund Temple replied not to these taunts by word, or look, or gesture. His eyes remained fixed upon the door through which Caroline Fanshawe had passed, as if expecting her return. Presently a new and frightful expression passed over his face; he seized his hat, which had fallen on the floor, and staggered out of the apartment. Arrived at the head of the stairs, he turned round, steadied himself by the balustrade, hurled a burst of passionate defiance and invective at Lord Fanshawe and the physician, and then sprang with the speed and fury of a maniac down the stairs. His horse was still at the door; he vaulted into the saddle, struck the high-blooded animal repeatedly with a whip he snatched from the groom, and was carried off at a fearful pace. The terrified horse had got the bit between his teeth, and was unmanageable; but this the unfortunate rider neither knew nor recked of. The universe seemed crashing, whirling round him as he dashed madly by the zig-zag lines of light, and along the roaring streets, followed by the shoutings and execrations of the people whose lives he was endangering. Just as he neared the entrance of Duke Street, Grosvenor Square, a loaded van came sharply out of it into Oxford Street. He could not if he would have checked the maddened horse in time to avoid a collision. He did not probably attempt it, and the animal's head came with the force of a cannon-shot against the hindwheel of the van. Mr Temple was hurled with tremendous force upon the foot-pavement, and by the time his groom came up, it had been discovered that he must have died instantaneously. The horse was also killed.

The play is over—the story told; but it may be necessary, as the curtain slowly descends, to subjoin a few particulars relative to the surviving actors in this perhaps too-easily-recognised domestic drama.

An attempt was made by a Mr Camelford, who, had neither of the Temples left male issue, would have been heir-at-law to the title and estates, to dispute the validity of Mrs Temple's marriage, or, more correctly speaking, that Arthur Smythe was really Arthur Temple. This, however, Robson's evidence, supported by several letters addressed to Arthur Temple by his brother Sigismund relative to his ill-advised union with Lucy Gaston, found amongst Sigismund Temple's private papers—though why preserved it seems difficult to say—established beyond doubt or question, and the suit was ultimately abandoned.

Sir Arthur Temple is now in his sixth year, and continues in the enjoy-

ment of excellent health, watched over with prideful tenderness by his mother, the still very beautiful Lucy of our story. Although it is said frequently tempted, and no wonder, to enter again into the bonds of holy matrimony, she has hitherto resolutely declined every offer of the sort, however dazzling. In truth, Mrs Temple does not appear to be greatly enamoured of state and splendour, for she never seems so thoroughly delighted and happy as when she can escape from Grosvenor Square or Temple House, with her son, and, of course, Mary Crawford, to Vale Farm, and be again the Lucy of her young days, with her trusty and now rejoicing friends, the Whistons, to every one of whose children, and they are already rather numerous, she is the bountiful and loving godmother.

Lord Fanshawe still survives, and in excellent preservation, much to the chagrin of the heir-expectant, whose locks are already gray with age and the hope still deferred of title and estate. His lordship's daughter, the brilliant Caroline, married, six months after Sigismund Temple's death, the viscount she had refused a few days previous to that event. She is now the star and cynosure of the British court; and adepts in the histories and mysteries of the peerage will, in all probability, find little difficulty in divining the title of the beautiful viscountess—a piece of information which we, for various reasons, decline recording here.

ELECTRIC COMMUNICATIONS.

ONE of the most striking phenomena presented to the mind of the student of Nature, is the principle of unity which pervades all her multiplied workings and productions. To refer to the fact that the past is linked to the present, and the present to the future—that correlations exist between every department of the organic and inorganic worlds—that the connections become clearer the more they are investigated—is to call attention to what are now received as philosophical truisms. The sympathies which filiate through geology to botany, chemistry, magnetism, zoology, and astronomy, are not less admirable when contemplated in their relation to animated creation: and in the universal desire and ability for communication in the latter, we perhaps have their most remarkable display. Naturalists tell us that gnats and several minor members of the insect race possess the power of making their sensations known to their companions equally with the laborious bee or sagacious elephant. Indeed, the endowing with the faculty to communicate appears to be one of the essential aims of nature. And if so, with what is often termed the subordinate or instinctive part of creation, how much more so in regard to man, who claims supremacy over all! Besides the gift of speech, man, by reason of his intelligence, finds means to convey his thoughts to distant places with an energy and comprehensiveness unknown to the quadrupedal tribes, and thus completes the unity which, starting from the inorganic molecule, is finally exemplified in him.

In the world's younger days, and for long afterwards, smoke and flame were the most obvious and available means for communicating signals to long distances. From the beacon-fires of the Scriptural ages to that which flashed from 'Ida's height,' and the stirring night when—

'From Eddystone to Berwick bounds, from Lynn to Milford Bay,
The time of slumber was as bright and busy as the day!'

and also to the period of threatened invasion within the memory of many now living, fire has been made a messenger of news. From the lighthouse top it warns and guides the mariner not less surely than the stars of heaven reveal his position on the trackless waters.

Of old, watchmen stood on the hills and cried aloud; trumpeters blew a blast from hill to hill; or legionaries, with elevated flags or spears, sent

tidings afar. 'Swift as a post' was not an inappropriate simile even in primeval days: Egypt's learned priesthood knew how to avail themselves of mysterious vocal tubes; the monarchs of Mexico and Peru maintained a corps of runners, who bore despatches to all parts of their empire with singular celerity. Another generation conveyed their wishes in the flashes of mirrors, the pealing of bells, the thunder of cannon, or flight of pigeons. Then came the mail-coach, with its fleet officials and fleeter steeds; to be in turn superseded by that triumph of steam, the locomotive and express train, speeding across a county in shorter time than the mail would have traversed a parish, seeming, in its career of seventy miles an hour, to have reached the limit of human possibility. But a new invention came to light, before which the wildest dreams of romance—the flying horse that carried off Prince Firouz, or Prince Houssain's travelling carpet—seem to become sober realities; and all former methods for the transmission of intelligence have been for ever excelled by the Electric Telegraph. With this man has achieved an entire and absolute unity.

The establishment of a telegraph necessarily involves a certain degree of civilisation—there must be fixed habits and steady policy; and we cannot better appreciate the advantages of the present system than by contrasting it with the past. To do this we need not go back to the time of the Greeks or Romans; our purpose will be effectually answered by a retrospect to the last two centuries. One science or art helps on another: to distinguish objects afar off there must be the possibility of seeing at a distance; and thus the study of optics and the invention of telescopes and reflectors would naturally suggest new applications of utility.

The Marquis of Worcester alludes to a telegraph in his famous 'Century of Inventions.' After him we may place Robert Hooke, one of the most notable philosophers of his age, who, in 1684, presented a paper to the Royal Society, 'Shewing a way how to communicate one's mind at great distances.' He had conceived the project long before; but the then recent siege of Vienna by the Turks had caused him 'to take up again' with his plan for discoursing at a distance, not by sound, but by sight.* The principle involved the use of telescopes, but it was less simple and ingenious than that which afterwards came into use.

Guillaume Amontons, a Frenchman, appears to have been the first to render a telegraph available for practical purposes about 1690, by 'a means which,' as recorded by Fontenelle, 'he invented to make known all that was wished to a very great distance—for example, from Paris to Rome—in a very short time, three or four hours, and even without the news becoming known in all the intervening space. This proposition, so paradoxical and chimerical in appearance, was executed over a small extent of country, once in presence of Monseigneur, and afterwards before Madame. The secret consisted in placing in several consecutive stations persons who, by means of telescopes, having perceived certain signals at the preceding station, transmitted them to the next, and so on in succession, and these different signals were so many letters of our alphabet, of which the key was known only at Paris and Rome. The greatest reach of the telescopes determined the distance of the stations, of which the number was to be the

fewest possible ; and as the second station made signals to the third as fast as they were seen at the first, the news was carried from Paris to Rome in almost as little time as it took to form the signals at Paris.' For this public exhibition of his apparatus, Amontons was indebted to the intrigues of Mademoiselle Chouin, a princely favourite ; but the dauphin was too indolent to make an effort towards encouraging the invention, and it shared the fate of many others—neglect.

Another projector, named Marcel, followed with no better fortune than his predecessor. Wearied with attendance on a dilatory government, he broke his machine and burnt his drawings, and died without revealing his secret. Next, Linguet, who had been for some years a prisoner in the Bastille, claimed the merit of the invention, and offered to construct a telegraph in exchange for his liberty. History is silent as to his offer being accepted. In course of time a private attempt was made : Monsieur Dupuis of Belleville constructed a telegraph, by means of which he communicated with his friend Fortin, who lived a few leagues off at Bayeux. Meantime Mr Edgeworth had published his plans in Ireland ; Bergstrasser of Hanau had investigated every branch of telegraphy : flame, smoke, reflection, rockets, detonations, torches, bells, trumpets, flags, and mirrors ; and attention being drawn to the subject in other quarters, shewed that the time for realising a speedy-transmission project was at hand.

It came at last with its man. Claude Chappe, when a youth in a religious establishment at Angers, had contrived an apparatus, a post, bearing a revolving beam, and circulatory arms, with which he conveyed signals to three of his brothers who were at a school about half a league distant, and read them off with a telescope. Keeping the idea in view for several years, he eventually laid his plans before the legislature in 1792, assuring them that ' the speed of the correspondence would be such, that the legislative body would be able to send their orders to the frontiers, and receive an answer back, during the continuance of a single sitting.' After much vexatious delay, the sum of 6000 francs was granted to enable him to make an experiment near Paris ; but his first apparatus was stolen by a party of men in masks, and no sooner was it reconstructed, than the populace burnt the work to the ground, stupidly imagining that certain direful machinations were involved in the signals. A third trial was more successful ; the authorities approved the plan, and Chappe, with the title of Ingénieur Télégraphe, was appointed to erect a telegraph from Paris to Lille. The French armies were on foot, and speedy intelligence of their successes or reverses was most desirable.

The line, with its apparatus, which admitted the formation of 192 different signals, was completed in two years. Its first announcement was a victory. On the last day of November 1794, Carnot entered the Assembly with the news, ' Condé is given up to the Republic ! The surrender took place this morning at six.' The Chamber voted that ' the Army of the North had deserved well of the country,' and caused their approval to be sent to head-quarters ; and before the legislators broke up, they were informed that their orders had been transmitted to Lille, and the receipt acknowledged. Such an incident in the infancy of the new art was hailed with enthusiastic acclamations.

This successful result led to the immediate formation of the other lines

which radiated from Paris to all the frontiers of the kingdom. The signals were conveyed with great rapidity; and to avoid confusion, the movable arms on the right of the central post were kept exclusively for government messages, those on the left being employed in the service of the line. Thus accidents or delays could be reported without detriment to the official despatch. From Paris to Calais, 152 miles, there were thirty-three stations, and a message could be sent from one extremity to the other in three minutes; to Strasburg, 255 miles, and forty-four stations, in six and a half minutes; to Toulon, 317 miles, and one hundred stations, in twenty minutes. The longest lines were to Brest and Bayonne; the former 325 miles, the latter 425; and altogether there were 519 stations, the annual cost of which amounted to £40,000. It has happened, sometimes, when one part of the country was obscured by fogs, that information has been conveyed to the capital by the longer route; on one occasion news from Lyons travelled to Paris by way of Bordeaux. The last of the brothers Chappe was in office until 1830, when the July revolution deprived him of his post and its emoluments.

The new mode of correspondence was speedily adopted by the other governments of Europe, and numerous forms of apparatus were proposed by enterprising inventors, some of them remarkable for the infinite multiplicity of their signals. The first line of telegraph established in England, in 1796, extended from London to Dover, speedy transmission of Channel news being then of prime importance. Portsmouth and the Admiralty were afterwards brought into communication by a system of signals not before adopted—a vertical post with two movable arms, that could be placed in forty-eight different positions. The maintenance of this line, seventy-two miles, involved a charge of more than £3000 yearly. It was given up in 1847.

With all its advantages, however, the aerial telegraph, as it was called, was a necessarily imperfect contrivance, being altogether useless at night, and during fogs or gloomy and rainy weather. For three-fourths of the year the Admiralty telegraph stood idle: 1600 hours in the twelvemonth were reckoned as its available capability. A foul-weather telegraph was conceived to be an impossibility, and the system of night-signals by means of lamps and reflectors was far from perfect, notwithstanding the endeavours after improvement. One of the most satisfactory, by the Rev. J. Bremner of Shetland, gained the gold medal of the Society of Arts in 1816. Couriers, mail-coaches, and dispatch-boats, were still the grand resource.

We turn now to another part of the general subject under consideration, not less interesting than important—that of electricity. Its history carries us back to the age of conjecture and the dawn of philosophy. Six hundred years before the birth of Christ, Thales had observed that amber, or *elektron*, as the Greeks called it, exhibited, when rubbed, certain properties of attraction which it did not otherwise possess. Besides giving us the word in which our term *electricity* originates, the early philosophers left behind them several accounts of electrical phenomena. Aristotle, Theophrastus, Pliny, Cæsar, and Plutarch, all mention them. Singular flames were sometimes seen on the tops of the masts of ships in the Mediterranean, or quivering on the heads of the wondering mariners; and on several occasions Roman troops, while on a march, had observed similar luminous appearances

on the points of their lances. And coming down to a later period, we find Eustathius, in his commentaries on Homer, relating the case of Walimer, father of Theodoric the Goth, whose body gave out sparks; and of another individual who, on drawing off his clothes, saw flames or scintillations leap from his skin with a crackling noise. From Thales to the twelfth century is a long period, yet scanty as is the record of facts, it is sufficient to shew that electrical phenomena had not passed without notice; but, as far as we know, no attempt was made to reason upon them, or define their nature. The first approach towards such a result was the treatise 'De Magnete,' published by Gilbert, an Englishman, at the end of the sixteenth century. He classifies all the then known electric substances, and enters into some discussion on the electricity of the air and the earth. The latter subject, in particular, engaged the attention of philosophers whose names are yet famous—Father Kircher, Descartes, Halley, and others. According to some theorists, iron crept about or grew within the body of the earth, and its transmission along deeply-buried tubes, provided by nature, was the cause of magnetic variation at the surface. Within the next fifty years the Prussian, Otto Guericke, produced the first electrical machine—a globe of sulphur made to rotate by means of a winch, while the friction of a piece of cloth held against it excited the electrical influence. He discovered one or two of the principles of the science, particularly that of the electric fluid passing from one body to another without actual contact, but missed the deduction of consequences from a fact since recognised as essential.

The eighteenth century came, and opened the most famous page in the history of electricity. For Guericke's ball of sulphur, Hauksbee substituted a globe of glass, while other experimentalists used straight glass tubes rubbed with the hand. Stephen Gray found that all substances might be classified as electrics and non-electrics; and, by means of packthreads more than a hundred feet in length, was the first to prove that the electric impulse could be transmitted to a considerable distance. In company with his friend Wheeler, he discovered also the insulating properties of glass, silk, hair, and resin, besides some other bodies. In France, Dufaye and Nollet were labouring diligently at the same pursuit. By wetting a cord, they observed that Gray's experiment could be greatly extended. They sent a current through thirteen hundred feet; and following up the reasoning of their English contemporary, 'Dufaye suspended his own person by silk lines, and being electrified, the Abbé Nollet, who assisted him in these experiments, presented his hand to his body, when immediately a spark of fire issued from the person of the one philosopher and entered the body of the other. Although such a result had been predicted as a consequence of the arrangement, the astonishment was not the less great at its occurrence. Nollet states, that he can never forget the surprise of both Dufaye and himself when they witnessed the first explosion from the body of the former.'

To Dufaye belongs the merit of discovering the two kinds of electricity, which he named *vitreous* and *resinous*, or, according to the present terminology, *positive* and *negative*. To call them two different manifestations of one and the same grand natural agency, would perhaps be a better interpretation of the phenomena. Germany next added a few facts to the growing science. A Scottish monk at Erfurt, by adopting glass cylinders, gave to the electrical machine almost its present form, and marvellous effects

were produced. In 1746, the three philosophers of Leyden produced the jar which still in name perpetuates the place of its discovery. The power of the shock, probably owing to its novelty, appears at that time to have been greatly exaggerated. Muschenbroek, writing an account of the experiments to Réaumur, states that 'he felt himself struck in his arms, shoulders, and breast, so that he lost his breath, and was two days before he recovered from the effects of the blow and the terror;' and adds, that 'he would not take a second shock for the whole kingdom of France.'

But leaving particulars, the investigations which most claim our attention are those which relate to the transmission of electricity to long distances. With lengths of wire held by human hands, Nollet formed a chain more than 5000 feet long, and found that the passage of the shock through the whole number of individuals was instantaneous. The same fact was still more satisfactorily demonstrated in England by Dr Watson, an eminent Fellow of the Royal Society. He carried a wire across the Thames at Westminster Bridge, one end being in contact with a charged jar, the other held by a person on the opposite shore. A second individual was placed in communication with the jar, and on a given signal the two dipped into the river an iron rod which they held in their hands, on which the shock travelled from one side of the stream to the other by means of the wire, and came back through the water to complete the circuit. This was an important discovery, inasmuch as it involved the principle on which depended all subsequent experiments on transmission to a distance. Watson repeated his experiments on several occasions, the last time near Shooter's Hill, with two miles of wire; and the now familiar fact that observers, however far apart, feel the shock at the same instant, then excited a degree of astonishment bordering on incredulity. Franklin's famous kite-experiment, which proved the identity of lightning and electricity, may be regarded as the climax of electrical discovery in the past century. No sooner had the general nature of the new and startling phenomena become known, than the idea immediately sprang up of employing the mysterious agency in the conveyance of signals. Maunoir relates, that in 1773 Odier wrote to a lady of his acquaintance—'I shall amuse you, perhaps, in telling you that I have in my head certain experiments by which to enter into conversation with the emperor of Mogol or of China, the English, the French, or any other people of Europe, in a way that without inconveniencing yourself, you may intercommunicate all that you wish, at a distance of four or five thousand leagues in less than half an hour! Will that suffice you for glory? There is nothing more real. Whatever be the course of those experiments, they must necessarily lead to some grand discovery; but I have not the courage to undertake them this winter. What gave me the idea was a word which I heard spoken casually the other day at Sir John Pringle's table, where I had the pleasure of dining with Franklin, Priestley, and other great geniuses.'

A short time previously, according to Maunoir, who adds that Odier was then devoting much attention to electricity, the latter wrote to the same lady—'Is it not astonishing that the movement of a morsel of straw, attracted by a piece of amber, should have suggested to Franklin the sublime idea of the lightning-conductor? Franklin was the first to discover the secret of imprisoning the electric fluid in a bottle.'

Other minds were also occupied with the subject: in 1774 Lesage, a Frenchman at Geneva, published a plan for an electric telegraph, which he submitted to Frederick of Prussia, conceiving that monarch best capable of realising it. He proposed to arrange twenty-four metal wires in some insulating substance, each connected with an electrometer, from which a pith ball was suspended. On exciting the wires by means of an electrifying machine, the movements of the twenty-four balls represented the letters of the alphabet, as might have been agreed on. The project, though ingenious, was never carried into execution, and would have failed at great distances, owing to an essential defect to be presently noticed.

Arthur Young, in his 'Travels in France,' gives us an account of a somewhat similar contrivance, which affords further evidence of the interest felt in the subject of electric communications. Under the date September 16, 1787, he writes:—'In the evening to Monsieur Lomond, a very ingenious and inventive mechanic. In electricity he has made a remarkable discovery: you write two or three words on a paper; he takes it with him into a room, and turns a machine enclosed in a cylindrical case, at the top of which is an electrometer, a small fine pith ball; a wire connects with a similar cylinder and electrometer in a distant apartment; and his wife, by remarking the corresponding motions of the ball, writes down the words they indicate, from which it appears that he has formed an alphabet of motions. As the length of the wire makes no difference in the effect, a correspondence might be carried on at any distance: within and without a besieged town, for instance; or for a purpose much more worthy, and a thousand times more harmless—between two lovers prohibited or prevented from any better connection. Whatever the use may be, the invention is beautiful.'

A method proposed by Reiser in Germany, in 1794, exhibited illuminated signals. Plates of glass partially covered with tinfoil were connected by wires with a machine, and sparks of light became visible on the uncovered parts of the glass when the electric current was passing. Cavallo, again, in his treatise on electricity, published in 1795, suggests the explosion of a Leyden jar as a means of arousing the attention of the distant operator. In the following year Salva, a Spanish physician, who in defiance of the opposition of bigoted monks and popular ignorance, had earnestly promoted the cause of vaccination—constructed an electric telegraph, and described it in a memoir which he laid before the Academy of Sciences of Madrid. The Infant Don Antonio was so much interested in the invention, that he caused a telegraph to be erected, and turned it to practical use. Shortly afterwards a more extensive attempt was made by Betancourt, who stretched wires from Aranjuez to Madrid, a distance of forty-five miles, and conveyed his signals in the discharge of jars. One after another, however, the schemes failed in subordinating the element of electricity to their purposes; the human mind had to be tasked to yet greater efforts, and the period of their realisation was not far distant. Of all the projects for establishing a telegraph with frictional electricity as its active principle, the most complete was that published by Mr Francis Ronalds in 1823.

There is something eminently gratifying in the consideration of science pursuing its even course undisturbed by political convulsions. While England was losing her right to the American colonies in the wanton

exercise of might, and while the social elements were fermenting on the continent, to break out in the agonies and horrors of the French Revolution, philosophers were quietly penetrating the secrets of nature, and searching for fuller and clearer knowledge. They had their reward.

The telegraphs here brought under notice failed, because they were worked by statical electricity—that is, electricity obtained by friction, or from Leyden jars. This kind of electricity is remarkable for what is called its *tension*, or tendency to fly off from its conductors. It is an agent not to be depended on or held in control, and proves itself often capricious, from various causes, some of them inappreciable: among the known, damp is one of the most influential. Hence the realisation of electric telegraphs on a large scale was essentially impracticable. Signals, it is true, might have been transmitted within a building, but not for miles out of doors, in all weathers. For the further development of telegraphy, we are indebted to dynamic electricity, or electricity without tension; that is, without a tendency to abandon the conductors along which it travels. Its phenomena, when compared with those of statical electricity, are much more striking and interesting.

In the whole history of accidental discovery, there is no event more remarkable than that by which that other form of electricity, known as galvanism, was brought to light. To quote M. Arago: 'It may be proved that this immortal discovery arose in the most immediate and direct manner from a slight cold with which a Bolognese lady was attacked in 1790, for which her physician prescribed the use of frog broth.'

In accordance with the medical advice, a number of frogs were prepared for stewing, and by some chance a few of them were laid on a table near an electrical machine, in the laboratory of Galvani, professor of anatomy at Bologna, and husband of the lady in question. An assistant working in the apartment had occasion to draw sparks from the machine, and each time that he did so, Signora Galvani observed that the limbs of the dead frogs moved as though alive. She called the professor's attention to the fact; he repeated the experiment, and with the same result. But without intending it, he went farther than this, and found that the limbs of frogs could be excited as well by means of good conductors as by a machine. The power was present, and required only an efficient cause to develop its action. Galvani, it is said, having prepared the hinder halves of several frogs for anatomical investigation, 'passed copper hooks through part of the dorsal column which remained above the junction of the thighs, for the convenience of hanging them up till they might be required for the purposes of experiment. In this manner he happened to suspend several upon the iron balcony in front of his laboratory, when, to his inexpressible astonishment, the limbs were thrown into strong convulsions.' On examining further into the phenomenon, he ascertained that it could be produced at pleasure by touching the surface of a nerve and of a muscle at the same time with a metallic conductor; and arguing from the whole body of facts that came within his experience, he propounded a theory of animal electricity which for some time dazzled the imaginations and stimulated the enthusiasm of a host of partisans, according to whom the existence of a 'nervous fluid' had been demonstrated by the experiments.

A new explanation was soon to appear. Volta, professor of natural philosophy at Pavia, reasoning upon Sulzer's experiment, in which the placing of a piece of lead and another of zinc, above and below the tongue, produced a peculiar effect on bringing the edges of the two pieces of metal into contact, and on the fact that a similar taste is perceived on applying the tongue to a charged electrical conductor, came to the conclusion that electricity was the cause of the phenomena witnessed by Galvani, and considered by that philosopher as due to some property inherent in the nerve or muscle. Volta had observed also that the excitement of the organism was greater when touched with two different metals than when only one was used, and from this result deduced the fact that the electricity resided in the metals, not in the nerves, and that bringing them together was the cause of the phenomenon. By pursuing the inquiry, further conclusions were arrived at; and Fabroni, another Italian, in a memoir which he communicated to the Florentine Academy, ascribed the electrical effects to chemical action.

After continued application, Volta at length discovered the instrument now known as the Voltaic pile. At first it was a circle of small cups partially filled with salt water, and containing plates of zinc and silver connected by wires. It was subsequently modified into its present form—a pile of alternate disks of zinc and copper kept separate by the interposition of disks of pasteboard moistened in an acid solution. He announced this discovery in a letter to Sir Joseph Banks, president of the Royal Society, in March 1800, and won for himself a reputation in the foremost ranks of science. He had found the means of accumulating and rendering continuous the power which had baffled Galvani.

At Napoleon's invitation, Volta visited Paris in 1801, and explained and illustrated his theory of contact of metals and electro-motive action to the members of the Academy of Sciences. The First Consul was one of the audience; and 'when the report of the committee on the subject was read, he proposed that the rules of the Academy, which produced some delay in conferring its honours, should be suspended, and the gold medal immediately awarded to Volta, as a testimony of the gratitude of the philosophers of France for his discovery. This proposition being carried by acclamation, the hero of a hundred fields, who never did things by halves, and who was filled with a prophetic enthusiasm as to the powers of the pile, ordered two thousand crowns to be sent to Volta the same day from the public treasury, to defray the expenses of his journey.'

The terms galvanism, or voltaic electricity, were applied to the newly-developed principle in honour of the two discoverers. Familiarity with their effects has scarcely divested them of their wonder-compelling character. The tongue-experiment is a household sport with many persons; and numbers besides know that an action is produced by leaning a strip of zinc against a strip of copper in a tumbler of muriatic acid. This action is, however, the most subtle, and as yet the most extraordinary of nature's manifold agencies. With two sorts of metal and an acid the current immediately begins to flow. In some of its effects it resembles electricity, yet there are essential differences. Galvanism must have a continuous conductor; electricity will leap over short distances from one to another. The one is steady, the other uncertain. Iron can be magnetised by gal-

vanism, not by electricity. Thus we appear to have two forces, alike yet unlike; both mysterious, and peculiarly inciting to philosophical investigation.

The announcement of Volta's discovery drew the attention of many inquiring minds to the subject all over Europe. In chemical researches more particularly the powers of the pile were made largely available. Ritter of Munich, in 1805, found that pieces of metal could be magnetised by the voltaic current; and in 1807 the famous Danish physicist, Oersted—whose recent decease is a great loss to science—made certain observations on the same phenomenon, which he diligently pursued and reconsidered, until he arrived at his celebrated discovery in 1819. It consisted in the capital fact that the needle of a compass, when placed above or below a voltaic wire stretched from north to south, and forming a complete circuit, deviated from its normal position, and shewed a tendency to place itself at right angles with the current. There was, besides, the remarkable phenomenon, that when the needle was *below* the wire, its south pole diverged to the west, if the current were passing from south to north, and to the east when flowing in the reverse direction: with the needle *above* the wire, directly opposite effects were produced. This was a discovery scarcely less important than that of the voltaic current, being, at the same time, the result of patient and long-continued inductive research, and the immediate cause of further application. Oersted first made it public in 1820, in a Latin memoir, in which he demonstrates the laws of the phenomenon, and states that by the meeting of two electric currents, a new development of power takes place, which attracts or repels the north pole of the needle, according as it is positive or negative; that the direction of this power is not in a right line, but a spiral—a view remarkable for its sagacity, and which subsequent experience has affirmed.

Oersted's discovery excited an admiration and activity among the learned not inferior to that which had greeted Volta and his pile. Among the foremost to elucidate the subject and extend the inquiry, Ampère stands prominent. In less than three months after the publication of the Danish philosopher's researches, he laid a paper on electro-magnetism before the Academy of Sciences at Paris, demonstrating the dynamical laws of the science from experiment and mathematical calculation. He considers that the battery calls into play two currents in the wire, moving in opposite directions, and thereby producing magnetic action; and shews that similar currents circulate about the poles of a magnet. The two currents exert a dynamic action on each other, varying according to direction. 'Two straight wires, along which currents are transmitted, will attract or repel each other, according to the direction of the currents. Let a line be imagined intersecting both wires at right angles. If both currents move towards this perpendicular, or both from it, the wires will attract each other; but if, while one of the currents moves towards this perpendicular, the other moves from it, then they will repel each other.' In proof of his statements, Ampère produced various contrivances, made chiefly of wire, to illustrate the phenomena; among them were small helices, which behaved as magnets while a current was passing through them. In the same year, too, Arago found that on plunging the wires of a battery into steel filings, the latter attached themselves to the wires, and remained adherent

as long as the circuit was complete, but fell off on the instant of breaking contact. Here was another important step in advance: a wire could be magnetised at pleasure. It led to the discovery by Mr Sturgeon, a few years later, of magnets of almost inconceivable power, by placing a bar of soft iron within a helix of copper wire, connected with a battery. As in the case of the steel filings, it became a magnet, or ceased to be such, every time that contact was made or broken. The straight bar was afterwards bent in the form of a horse-shoe, and its attractive power so much increased in consequence, that in some instances from two thousand to three thousand pounds have been sustained. The new power partook somewhat of the tremendous, and every fact that threw light upon it served but to stimulate the ardour of inquiry. Faraday's researches have rendered signal service to the progress of electro-magnetism, particularly his discovery of induction, which he describes as 'the effect of the actions of contiguous particles.' He tested it by an extensive series of experiments on various solid and æriform substances, under different pressure and temperature. The late Professor Daniell states, as an explanation of the theory, that 'as every electric current is accompanied by a corresponding intensity of magnetic action at right angles to the current, good conductors of electricity, when placed within the sphere of this action, should have a current induced through them, or some sensible effect produced, equivalent in force to such a current.'

To enumerate the names only of those who have advanced the science of electro-magnetism, apart from any mention of their labours, would fill a long list. At the period more immediately under notice, Schweigger, De la Rive, Moll, Cumming, Barlow, and Christie, were multiplying facts, or deducing laws from those already known. Besides these, Ohm of Nuremberg rendered distinguished service, by establishing the mathematical laws of electric currents, and demonstrating the values really attaching to the terms 'quantity' and 'intensity;' at the same time giving formulæ on which the various actions and effects might be calculated. Electricians, wherever employed, have been highly indebted to his labours, which have so greatly facilitated the application of the science.

Prior to Oersted's discovery of the deflection of the needle, several attempts had been made to apply voltaic electricity to telegraphic purposes. The first was by Soemmerring of Munich in 1811. But here we may pause a moment to consider the singular account recorded in the 'Spectator.' The author referred to by Addison is the Jesuit Famiano Strada, who was master of rhetoric at Rome, and published his 'Prolusiones Academicæ' in 1617. This work contains the account in question, the purport being, that correspondence might be carried on between two individuals widely separated by means of a certain magnetic agency. According to Strada, it was not a new idea; he ascribes it to Cardinal Bembo, who died at Rome in 1547, and explains that it came to him by hearsay from several eminent persons, through whom it could be traced back to its reputed originator. Without attaching undue importance to this statement, it seems nevertheless to carry us back to a date earlier than any yet recorded for the inception of a project for rapid communication to long distances.

Strada's version, as a recent translation shews, differs from the same

mary given in the 'Spectator.' He says in commencing: 'Magneti genus est lapidis mirabile;' and after describing the properties of the load-stone, proceeds: 'Now, then, if you wish your distant friend, to whom no letter can come, to know anything, take a disk (or dial), then write round the edge of it the letters of the alphabet, in the order in which children learn them, and in the centre place horizontally a rod which has touched the magnet, movable, so that it can touch whatever letter you wish.' A similar instrument is to be made, which 'disk let the friend about to depart take with him, and agree beforehand at what time, and on what days he will examine whether the rod trembles, and what letter it points to with its index. These matters being thus arranged, if you desire privately to speak to the friend whom some shore of the earth holds far from you, lay your hand on the globe, turn the movable iron—there you see disposed along the margin all the letters which are required for words; hither turn the indicator, and the letters, now this one, now that one, touch with the style; and while you are turning the iron through them again and again, you separately compose all the ideas in your mind. Wonderful to relate, the far-distant friend sees the voluble iron tremble without the touch of any person, and run now hither, now thither; conscious he bends over it, and marks the teaching of the rod, and follows, reading here and there the letters which are put together into words; he perceives what is needed, and learns it by the teaching of the iron. And moreover, when he sees the rod stand still, he, in his turn, if he thinks there is anything to be answered, in like manner, by touching the various letters, writes it back to his friend.' Here Strada becomes impressed with the importance of his subject, for he breaks out—'Oh may this mode of writing prove useful! Safer and quicker thus would a letter speed, nor have to encounter the snares of robbers or impediments of retarding rivers. A prince might do the whole business (correspondence) for himself with his own hands. We children of scribes, emerging from the inky flood, would then hang up our pens in votive offering on the shores of the magnet.'

Without stopping to inquire whether in this Strada wished to perpetuate the history of a lost art, or was merely giving play to his imagination, we return to Soemmerring, who, in the year mentioned, proposed a scheme for a voltaic telegraph to the Academy of Sciences at Munich. It comprehended as many wires as the letters of the German alphabet, and the numerals 0 to 9, which terminated in thirty-five gold points in a vessel of water. When the current passed from the pile, decomposition of the fluid took place, and a bubble of oxygen or hydrogen appeared at the point or letter to which attention was desired. Soemmerring appears to have been aware that the motion of electricity was swifter than that of light; and in his memoir he sets forth the advantages to be derived from such a form of telegraph—its availability by night or by day, in fog or in cloud, and its invisibility while *en route*. The contrivance, although ingenious, failed in one particular: there was nothing to arouse the attention of the correspondent. A means for this purpose was subsequently added by Schweigger, who shewed also that two wires would be more effectual than the greater number, and that it would not be impossible to print the communications from one end of the wire to the other—thus anticipating two of the

most remarkable peculiarities belonging to the present form of electric telegraph.

The deflection of the needle—that proof of ‘magnetic action at right angles to the current’—appears to have been most studied as a medium for signals, and became the subject of eager experiment. The current, however, when passed along any considerable length of wire, was found insufficient to produce a well-defined movement. This defect was remedied by Schweigger, in an instrument which he invented, and called the *multiplier*—a name expressive of its essential principle. It is astonishingly sensitive, and has proved most valuable in the study of electro-dynamics. The construction is based on the fact, that a current returning upon itself, acts in all its parts, and causes a powerful deviation in a magnetic needle placed within it. As described by Moigno: ‘A conducting wire twisted upon itself, and forming a hundred turns, will, when traversed by the same current, produce an effect a hundred times greater than a wire with a single turn; provided always that the electric fluid pass through the circumvolutions of the wire without passing laterally from one contour to another. This is a condition easy to fulfil. To make a multiplier, you take a silver or copper wire of any length or size, closely enveloped in silk thread, and wind it round a small frame, within which the needle is suspended on a pivot, and leaving a few inches free at each extremity. These are called the two wires of the multiplier, and when in work, the current enters by one end and passes off at the other.’ With this contrivance, of which more remains to be said, a great difficulty was overcome.

The discovery of thermo-electricity by Seebeck of Berlin is so far related to our subject as to claim a brief notice. He found that by applying heat to one extremity, or to any part of pieces of metal, they could be made to give out electric currents. One end of a short bar being raised in temperature, a circulation of a current is produced through the whole mass. Here is a phenomenon singularly illustrative of the magnetism of the earth, and corroborated by Faraday's recent discoveries. ‘The sun,’ it is said, ‘would thus become the exciting agent, whose uniform tide of heat, sweeping the tropical zone, would be productive of an immense westerly circumflowing electric flood, and thus convert the terrestrial ball into a grand thermo-electric magnet.’

The new science was gradually assuming a definite combination: two French savans, in the course of their investigations, found that a long extent of the iron of a railway could be used to complete a circuit, and bring back the reverse current. Becquerel had shewn, too, in carrying out Volta's researches, that a pile might be constructed with a constant though feeble current; and the finding of a stronger power became of importance. The pile was replaced by batteries of various form, among which the constant battery constructed by Professor Daniell supplied the long-sought desideratum. The zinc was plunged into a solution of chloride of sodium, and the copper into a solution of sulphate of copper. The products of decomposition were disposed of by an ingenious contrivance, and loss of power provided against, so that the action maintained its full force for a considerable period. Batteries still more powerful have since been invented: the liquids employed have been varied, and charcoal and platinum substituted for copper. One by Wheatstone required but a single

liquid, sulphate of copper, in which was plunged a porous vase filled with a pasty amalgam of zinc, producing a constant action. Thus by degrees the elements of telegraphing were prepared: there needed but the mind to combine them.

This distinction is claimed by Professor Morse, an American, having, as he says, invented the first electro-magnetic telegraph while on his passage from Havre to New York in 1832. His contrivance included a pen at one end of a wire, which, as contact was made or broken, produced an arbitrary alphabet of dots and strokes, which might represent definite characters. An experiment with a circuit of ten miles was tried before several scientific men well known in the United States, and members of Congress; and the result being favourable, a sum of money was voted by the government for a trial on a larger scale. The account of these proceedings appears not to have been published earlier than 1837; meantime Baron Schilling of St Petersburg had constructed an electric telegraph, but died before its complete development. By his method, movements were imparted to five needles, out of which a code of signals was formed. Gauss and Weber's experiments and deductions, published in 1834, brought the possibility of electro-telegraphy still more within reach. To these two philosophers the theory of the science is materially indebted. The first-mentioned, the venerable professor of Göttingen, has been called its father, such are the sagacity and insight which he has brought to bear on so intricate a subject.

We come now to 1837, the year in which the projects of electro-telegraphy became available realities. Steinheil of Munich succeeded in sending a current from one end to the other of a wire 36,000 feet in length, the action of which caused two needles to vibrate from side to side, and strike a bell at each movement. The bells were made to differ in tone, so as to indicate distinctly right and left signals; at the same time, to combine a phonic and a written alphabet, certain points tipped with ink impressed dots upon a band of paper, and recorded the desired message. In the course of his researches Steinheil proved a fact, the most interesting perhaps in telegraphic science—that instead of using two wires, the earth would serve to complete the circuit. This verification of a phenomenon so extraordinary in its nature—one which is still to be explained—has been attended with the most important results in the economy of telegraphs, and will tend more to keep Steinheil's name in memory than his mechanical apparatus, which was said to be too complicated and tedious in operation for any one but a German.

It was in 1837 also, that Wheatstone, whose name is so intimately associated with telegraphic progress in England, took out his first patent for an electric telegraph. He had been led to the invention by his experiments to determine the velocity of electricity in 1834, and proposed a system of five conducting wires in connection with as many needles, which indicated the letters of the alphabet at the rate of twenty a minute. Attention was to be drawn to the signals by the stroke of a bell, forming part of the apparatus.

It would be supposed that when the eye and the ear had been addressed, telegraphic communication had achieved all that was required of it; but Mr Vorsselman de Heer of Deventer invented an apparatus which

imparted its signals through the sense of touch, and was based on the principle that to produce an effect by this medium demands a much smaller power of electricity than to deflect a needle. He employed ten wires, and obtained forty-five different combinations, which were felt by placing the finger-tops on the keys of the instrument, and attracted the notice of the attendant by a wire attached to his person night and day: even if in bed he was to be aroused by the shock. The cost would have been about one-eighth of the usual expense of telegraphic apparatus at that period. Much ingenuity was displayed in the whole arrangement, which, under certain conditions, would be more useful and available than any other.

In 1840 Wheatstone had made improvements which greatly simplified his first methods; the number of wires was reduced to two, while the power of the instrument was increased, for thirty letters could be indicated in a minute. Besides this, the same inventor shewed that the passage of a current afforded means for other spheres of observation. Travelling at a speed that would circumvolute the globe seven or eight times in a second, it might measure the rate of motion of projectiles, or regulate the movement of all the clocks in a country; and by an additional contrivance the place of fracture in a wire could be ascertained without the necessity of examining its whole length. A telegraphic wire was to bring down from a balloon, stationary at a considerable height, the readings of a set of philosophical instruments; to record the state of fluctuations of a barometer, thermometer, hygrometer, and magnetometer. The apparatus for a series of experiments of this nature was actually prepared, and is still kept in readiness for a fitting opportunity. This principle has since been reduced to practice by Mr Smee —

‘Behind my house,’ he observes, ‘is a small hothouse; and I conceived the idea of constructing a simple telegraph which should inform me of the temperature. Now my plants would be injured if the heat fell below 50° or rose above 90°, and I therefore wished to have some contrivance which should inform me in my own study whether the temperature were remaining or not within these limits. For this purpose a thermometer was made for me, into which two platinum wires were inserted, which came in contact respectively with the mercury at those two points. By this contrivance, when the heat either fell below or rose above those two points, the mercury and platinum were not in contact, and a voltaic current could not be maintained. Telegraphic communications were laid down from these two platinum wires to my dwelling-house; and a large pair of zinc and copper plates were sunk into the ground for a battery. By attaching the wires to a galvanometer we can always ask how the temperature is; and by attaching an alarum, a gardener might be warned of any accident at any time of the night.’ Then in the same way that the catch of the telegraph alarum is liberated, so might the stop of ponderous machinery be released, regardless of distance, and effects of commensurate importance be produced. With a proper combination of machinery, a lady, seated in her drawing-room in London, might play Beethoven’s symphonies on the piano of her friend at Edinburgh; or a ringer in St Paul’s belfry might entertain the frequenters of the Parliament Square with a lively carillon from the tower of old St Giles’s. Still more remarkable is the applica-

tion of electro-magnetism as a motive agent. If, as appears from experiments recently made in America, it can be made to move a ton weight of iron, it is not easy to define the limits of its power.

The employment of the printing apparatus in 1843 gave to the electric telegraph a wider and completer efficiency. This contrivance, when attached to the telegraph machinery, and set in motion by wheelwork, caused a ribbon of chemically-prepared paper to pass under a fine steel point, which imprinted a series of arbitrary characters—dots and strokes—simultaneously with their transmission from the other end of the telegraph, however distant. Although seventy or eighty characters could be produced in a minute, the whole process was tedious, as the message had first to be punched in a strip of paper, and then written off after its delivery. In America the preliminary punching was avoided by making the operator open or close the galvanic circuit for longer or shorter intervals, by pressing on the spring-key of the telegraph: according to the duration, strokes or dots were produced. Since that time improvements have been made which print the message in the Roman character, and accelerate the rate of transmission. The latter, there is reason to hope, will shortly become still more rapid, should Mr Wheatstone succeed in his endeavour to communicate 180 distinct signals in a minute. Already Bakewell's copying telegraph is a great advance upon that of the arbitrary signs. 'When this means of correspondence is in operation,' as is stated, 'instead of dropping a letter in the post-office box, and waiting days for an answer, we may apply directly to the copying telegraph, have it copied at the distant town in a minute or less, and receive a reply in our correspondent's handwriting almost as soon as the ink is dry with which it was penned. There are various means, too, for preserving the secrecy of correspondence; the most curious of which is, that the writing may be rendered nearly invisible in all parts but the direction, until its delivery to the person for whom it was designed.'

The success that has attended the progress of electro-telegraphy has, as is usual in such cases, called up a host of claimants to the various inventions or discoveries. More than sixty have been enumerated. We are, however, too apt to overlook the fact, that discovery is rather the consequence of tendencies of thought and progress on the part of numbers, than of sudden individual conception. The elaboration of a great moral or scientific truth, and its application to the wellbeing and advancement of society, are results not less honourable to those who have assisted in producing them than to the prime originator—if such there be: remembering always that but for the thought and travail of previous generations, our own achievements would be slender indeed.

The first application of the electric telegraph was made on the Blackwall Railway, from the station in the Minories to Brunswick Pier. On this line the trains start every quarter of an hour, and the stopping places are so numerous, that it is not easy to conceive how the service could have been performed without such aid as the new mode of telegraphing was calculated to afford. The announcements of departures, of stoppages, of the number of carriages attached to the wire rope, accidents, or other causes of delay, were regularly transmitted, and the business thereby main-

tained in full vigour and discipline. After this, other railway companies availed themselves of the same indispensable agency, and telegraphs were gradually stretched along the London and North-Western, South-Western, South-Eastern, and Eastern Counties lines. On the Great Western the wires at first were placed inside a continuous tube, fixed a few inches above the ground at one side of the way, but were afterwards strained on posts, as on other railways—an arrangement, with slight exceptions, now prevalent throughout Britain. This line had not long been complete when a striking instance occurred of the service which the telegraph might render to society. A man of respectable exterior took his seat in a first-class carriage at the Slough station, eighteen miles from London: he was a murderer hurrying away from the yet warm body of his victim; the panting engine nears its destination; the eager criminal believes his escape certain; but the alarm has been given at the fatal spot, and quick as lightning the telegraph transmits it to Paddington, with a description of the suspected individual. In three minutes an answer announces the arrival of the train, the identification of the fugitive, and the certainty of his capture. There are few persons who will not remember the impression made on the public mind by this victory of science and justice over crime. Again: a communication transmitted from Paddington immediately that the year 1845 commenced, was received at Slough in 1844, the clock at that place not having struck midnight. Though so short a distance, the difference of longitude was sufficient to mark the inconceivable velocity of the electro-magnetic current. Swift-footed Time was henceforward to be beaten in the race. A still more remarkable instance of the same nature occurred in America: a message flashed from Washington when the New Year was a quarter-hour old, was read off at New Orleans with half an hour of the old year yet to run.

The wire commonly used for telegraphs is about one-sixth of an inch diameter, covered with a thin coating of zinc, or, as it is called, 'galvanised,' to prevent oxidation. Besides this, it is found that the deposit from damp and dust and other causes affords a very efficient protection. Four miles of such wire weigh a ton. The posts to which it is attached are fixed at from fifty to sixty yards apart—thirty or thirty-two to the mile. To insure perfect insulation the wires are not permitted to touch the posts, otherwise the current would be diverted downwards through the wood, particularly in wet weather. Insulators of various forms, 'rings, collars, and double cones,' are made of brown stoneware, which of all substances yet tried throws off the wet most readily. A stone-pitcher, after being plunged into water, is seen to retain scarcely a trace of the immersion beyond a few drops on the surface. Even with this material it is sometimes difficult, during dense fogs or heavy rains, to preserve the integrity of the current.

Besides the supporting-posts, there are others called 'winding-posts,' four to the mile, to which the wires are connected in alternate half-mile lengths, and stretched by means of a screwing apparatus. It is on these posts that the stone collars are used; a sufficient number being attached to each side, the wire is passed through the eye and drawn tight, while to maintain the communication uninterrupted, a loop of wire is affixed to the main lengths at a short distance on either side of the post, round the front of

which it passes in a slight curve. To protect the insulators as much as possible from wet, they are sheltered by a sloping wooden roof. The pointed wire seen rising a few inches above the tops of the posts on some lines is a lightning-conductor with its lower extremity buried in the earth. A precaution not unnecessary, as thunder-storms produce singular effects on the lines of telegraph.

One wire only will suffice for the transmission of correspondence between any two places; the making use of a greater number, six, eight, or ten, as may be seen on some railways, is merely for the sake of economy or convenience. It is found better in practice to keep one or two wires distinct for the main termini or points of correspondence—say from London to Derby—than to make them serve at the same time all the intermediate stations. It is an arrangement which helps to simplify the working duties of the office, and to facilitate them also, for with but one or two wires there would be constantly-recurring delays and confusion, since while any two places were intercommunicating all the others would have to wait. One of the wires is sometimes employed exclusively for the alarms—that is, to ring the bell at any station with which it may be desired to ‘speak.’ Wherever connection is made with an intermediate office, the main wire is cut, and a shackle inserted, and from either side of this a short wire is stretched to the instrument; thus affording means for the passage of a current up or down the line. The same contrivance would be adopted were there but one wire to connect the two extremes of the line; and it is within the bounds of possibility that some invention or adaptation will shew that all the required services may be performed by a single conductor.

The wires, when in their place, are connected with the batteries and telegraphic instruments at the respective stations; and here it becomes necessary to consider the construction and mode of action of a battery. The latter may be familiarly described as a wooden trough, from two to three feet long and about six inches wide, divided crosswise into twenty-four compartments or cells—more or fewer according to circumstances—by partitions of slate. Two plates of metal, copper and zinc alternately, are placed in each cell, in such an order that all the plates of one kind face towards one end of the trough, and all of the other kind to the other end. A small strip or ribbon of copper unites each pair at the centre of their upper edges, forming, as it were, so many curved handles, by which they can be lifted in and out. As soon, then, as the remaining vacant space in each cell is filled with an acidulated fluid the action commences; the acid begins to act on the zinc by dissolving it, the water contained in the solution is decomposed, and hydrogen thrown off from the surface of the copper plates; while by a combination of oxygen, oxide of zinc is formed, and this, dissolving in the acid—which is commonly sulphuric—sulphate of zinc is produced. These effects are the consequence of the general law established in relation to voltaic electricity, ‘that by the simple contact of dissimilar metallic bodies, a partial transfer of the electric fluid from one to the other invariably takes place.’ A positive current is generated at the zinc, and passes to the copper through the intervening fluid in all the series of cells; and continues to flow as long as contact is maintained between the wires which depart from either end, whatever be their length. There are various contrivances for increasing and rendering continuous the

power of batteries, and for checking deterioration in the metal or acid, which we need not stay to consider, as they do not affect the main question.

The cells of telegraph batteries, instead of a fluid, are filled with pure sand—a material chemically inert, moistened by pouring in the dilute sulphuric acid—an arrangement which admits of the apparatus being removed from place to place without risk of spilling the contents, while it diminishes waste of the plates without diminishing their power. The zinc is most liable to dissolution, and would be rapidly exhausted were it not for the protective influence discovered by Mr Sturgeon. Having washed the plates clean, he dipped them into mercury, and the thin adherent coat of the rarer metal is found to prevent effervescence of the surface. Those which are known as *amalgamated* plates consequently last longer than others left in their native state; and after a turn of service they may be again washed and redipped. A well-prepared battery, with occasional renewals of the acid, will maintain an effective working condition during twelve or fifteen months. According to Mr C. V. Walker, to whose work we are indebted for the substance of some of our details: ‘The telegraphs on the South-Eastern Railway, of 180 miles and forty-seven stations, are worked with 2200 pairs of such plates; and the whole telegraph system in the United Kingdom employs about 20,000 pairs.’

In preparing the batteries, it is possible to determine mathematically beforehand the amount of resistance, and the force necessary to overcome it; and thus to proportion the number of plates to the distance to which the wires extend. Large wires are better conductors than small ones. Iron is a better conductor than copper, and copper than silver. The several conditions may be calculated from the formulæ laid down by Ohm.

The wires of the battery meet those of the telegraph in what is called the electro-magnetic machine, which externally resembles a cabinet clock, having a square dial-plate inscribed with the letters of the alphabet, and certain arbitrary characters, and two hands placed side by side near its centre. These hands are the needles which are the tongues of the apparatus; in their vibrations to the right and left, their starts and pauses, the whole correspondence is conveyed. For each needle visible on the face of the instrument there is a corresponding one inside, the two being so placed that the north pole of the one and the south pole of the other are in the same position, so as to neutralise their magnetism, or rather the action of magnetism upon them. They are thus kept in a perpendicular position, and obedient to the slightest impulse from the battery. The inner needle is suspended within a coil or multiplier, which intensifies the power of the current at this particular spot, and is deflected to either side at pleasure by movement of the levers or handles which close or open the electro-magnetic circuit.

The telegraph wires finish in two terminals, which form part of the mechanism, and are in connection with the magnet and the multiplier. The battery wires are brought to two other terminals, connected also with the same apparatus; so that in order to reach the telegraph wires, the current must first excite the magnet and the needles. This action takes place only when work is to be done; at other times the circuit is left open. Instantaneously, however, on making contact, the signals exhibited

at one end of the line are reproduced at the other; such is the astonishing power of the magnet when rendered active. Messages of business or friendship, congratulation or anxiety, may be sent from one end of the kingdom to the other with the velocity of lightning; on which Arago observes, 'the most extended and brilliant flashes of the first and second order, those even which appear to develop their fires over the whole scope of the visible horizon, are not equal in duration to the thousandth part of a second.'

With all this speed, however, there is no actual motion, no absolute passage of a fluid. It is only that, by a law of polarity, one molecule affects the other next to it; and so on *ad infinitum*, and with almost inappreciable celerity, as long as the exciting cause remains. To demonstrate the invisible by the visible, we may compare it to the great tidal wave which comes up from the South Atlantic at the rate of a thousand miles an hour. Such a mass with such rapidity, it is evident, would instantly overwhelm and destroy the mightiest barriers, and continents would be swept away as fragile mounds. But it is not the water that moves; the original impulse or motion, travelling from particle to particle, alone produces the phenomenon. So with what is called a current of electricity along a conducting body.

When a message is to be sent, the clerk whose duty it is to work the instrument, places the written document before him; and after striking the 'ringing key,' to call the attention of his correspondent, takes one of the levers which project from the base of the machine in each hand, and moving them from side to side produces corresponding and simultaneous movements of the needles on his own and the distant dial-plate, and the words are spelt off with great facility. Such is the quickness of apprehension acquired by practice, that the clerks can write the message as fast as the needles deliver it; and it is said that some of the more expert would be able to read it without error from a blank dial.

To expedite transmission, the communications are made as brief as possible, by the elision of letters, and syllables, and sometimes of half a word; besides which, many conventional signs are made use of. 'We have,' says Mr Walker, 'a signal for the period or full stop, and for *paragraphs*; and we have one for *underlining* words. And we have many very valuable special signals. There is also a signal among the clerks for laughing, and one for the *whistle* of astonishment.' Where secrecy is desired, any two parties have only to agree to employ numerals as letters, or to reverse or transpose the alphabet at pleasure, in order to form a code of signals which none but themselves shall be able to interpret. The messages transmitted on the Admiralty service are based on a private system, of which the chiefs alone understand the import.

With respect to communications of greater length, the writer just quoted observes: 'The rates at which newspaper dispatches are transmitted from Dover to London, is a good illustration of the perfect state to which the needle-telegraph has attained, and of the apt manipulation of the officers in charge. The mail, which leaves Paris about mid-day, conveys to England dispatches containing the latest news, which are intended to appear in the whole impression of the morning paper. To this end it is necessary that a copy be delivered to the editor in London about three o'clock in the morning.

The dispatches are given in charge to us at Dover soon after the arrival of the boat, which of course depends on the wind and the weather. The officer on duty at Dover, having first hastily glanced through the manuscript, to see that all is clear to him and legible, calls 'London,' and commences the transmission. The nature of these dispatches may be daily seen by reference to the 'Times.' The miscellaneous character of the intelligence therein contained, and the continual fresh names of persons and places, make them a fair sample for illustrating the capabilities of the electric telegraph as it now is. The clerk, who is all alone, placing the paper before him in a good light, and seated at the instrument, delivers the dispatch, letter by letter, and word by word, to his correspondent in London; and although the eye is transferred rapidly from the manuscript copy to the telegraph instrument, and both hands are occupied at the latter, he very rarely has cause to pause in his progress, and as rarely also does he commit an error. And, on account of the extremely limited time in which the whole operation must be compressed, he is not able, like the printer, to correct his copy.

'At London there are two clerks on duty—one to read the signals as they come, and the other to write. They have previously arranged their books and papers; and as soon as the signal for preparation is given, the writer sits before his manifold book, and the reader gives him distinctly word for word as it arrives; meanwhile a messenger has been despatched for a cab, which now waits in readiness. When the dispatch is completed, the clerk who has received it reads through the manuscript of the other, in order to see that he has not misunderstood him in any word. The hours and minutes of commencing and ending are noted; and the copy being signed, is sent under official seal to its destination, the manifold fac simile being retained as our office copy, to authenticate verbatim what we have delivered.'

'On 11th December 1849, to the great astonishment of the merchants and bankers of Paris, three gentlemen appeared on 'Change in that city, at half-past one P.M., having with them 150 copies of the 'Times,' printed and published in London on the morning of the self-same day; and not only did the 'Times' contain the Paris news up to noon of the previous day, but actually the closing prices of the Paris Bourse of the previous evening.

'The electric telegraph contributed in no small degree towards the accomplishment of this feat. At eight minutes past one A.M., the dispatch of 321 words, and the Bourse prices, equal to 55 words, were delivered into our charge at Dover, having been conveyed thither from Calais in the ordinary mail-boat. In exactly thirty-two minutes—namely, at forty minutes past one—a correct copy of both these documents was handed in by us to the Times Office in London. The dispatch occupied us eighteen minutes, being at the rate of 17½ words per minute; the Bourse prices, two minutes. In respect to the latter, the rate is high, because the larger portion is anticipated, the mere fluctuations being all that is new. There was nothing extraordinary to us in this, quickly as it was accomplished; indeed, on the following morning the writer in London was fairly beaten by the telegraph—the words were read off faster than he could make a clean copy of them.'

An idea of the amount of telegraphic correspondence on a railway may be formed from the fact, that on the South-Eastern line, 'during the three

months ending October 17, 1850, 4831 service messages were entered in the Tonbridge books, and 5235 in those at Ashford.' And in six months of the same year the profits arising from the telegraph were £776, being at the rate of 5 per cent. per annum, and an increase of 1½ per cent. over the corresponding six months of 1849.

The proprietors of telegraphs inform us that the communications intrusted to them for delivery comprise the whole catalogue of human wants and wishes, business and pleasure, joy and sorrow, friendship and law. On some occasions they have been asked to send a sum of money, or a small parcel along the wire, by individuals, too, whose surprise shewed the sincerity of their belief that the instrument could perform what was desired. Games of chess have been played between parties in distant towns—Southampton and London—the moves being flashed from place to place alternately, as fast as they were made. Then the security which the telegraph lends to railway travelling is not the least of its merits: accident and obstruction can at once be made known, and the remedy provided. 'On New-Year's Day 1850, a catastrophe, which it is fearful to contemplate, was averted by the aid of the telegraph. A collision had occurred to an empty train at Gravesend; and the driver having leaped from his engine, the latter started alone at full speed to London. Notice was immediately given by telegraph to London and other stations; and while the line was kept clear, an engine and other arrangements were prepared as a buttress to receive the runaway. The superintendent of the railway also started down the line on an engine; and on passing the runaway he reversed his engine, and had it transferred at the next crossing to the up-line, so as to be in the rear of the fugitive. He then started in chase, and on overtaking the other he ran into it at speed, and the driver of his engine took possession of the fugitive, and all danger was at an end. Twelve stations were passed in safety; it went by Woolwich at fifteen miles an hour, and was within a couple of miles of London before it was arrested. Had its approach been unknown, the mere money-value of the damage it would have caused might have equalled the cost of the whole line of telegraph.'

The promptitude with which detection has followed fraud by the agency of the telegraph is sometimes rather amusing. Mr Smee relates an instance: 'One Friday night, at ten o'clock, the chief cashier of the bank received a notice from Liverpool, by electric telegraph, to stop certain notes. The next morning the descriptions were placed upon a card and given to the proper officer, to watch that no person exchanged them for gold. Within ten minutes they were presented at the counter by an apparent foreigner, who pretended not to speak a word of English. A clerk in the office who spoke German interrogated him, when he declared that he had received them on the Exchange at Antwerp six weeks before. Upon reference to the books, however, it appeared that the notes had only been issued from the bank about fourteen days, and therefore he was at once detected as the utterer of a falsehood. The terrible Forrester was sent for, who forthwith looked him up, and the notes were detained. A letter was at once written to Liverpool, and the real owner of the notes came up to town on Monday morning. He stated that he was about to sail for America, and that whilst at an hotel he had exhibited the notes. The person in custody advised him to stow the valuables in his portmanteau, as Liverpool was a

very dangerous place for a man to walk about with so much money in his pocket. The owner of the property had no sooner left the house than his adviser broke open the portmanteau and stole the property. The thief was taken to the Mansion-House, and could not make any defence. The Sessions were then at the Old Bailey. Though no one who attends that court can doubt that impartial justice and leniency are administered to the prisoners, yet there is no one who does not marvel at the truly railway-speed with which the trials are conducted. By a little after ten the next morning—such was the speed—not only was a true bill found, but the trial by petty-jury was concluded, and the thief sentenced to expiate his offence by ten years' exile from his native country.'

The Electric Telegraph Company, incorporated in 1846, whose central establishment is in Lothbury, behind the Bank of England, hold a patent right for a term, in part expired, of fourteen years; their charge for the use of it is £20 per mile. The building is amply furnished with all the requisites for telegraph service; and by means of wires laid in tubes under the surface of the streets, is connected with all but one or two of the metropolitan railway stations, the post-office, the head police station in Scotland Yard, the Admiralty, the new Houses of Parliament, Buckingham Palace, and the latter, by a further extension, are now placed in communication with the Great Exhibition Building in Hyde Park. Besides these, communications are complete with eighty different places in the provinces, including the chief towns and outports. Electric telegraphs, according to the parliamentary enactment, 'shall be open for the sending and receiving of messages by all persons alike, without favour or preference, subject to a prior right of use thereof for the service of Her Majesty, and for the purposes of the company.' A proviso is also made in favour of the secretary of state, who may, on extraordinary occasions, take possession of all the telegraph stations, and hold them for a week, with power to continue the occupation should the common-weal require it. 'There have now,' so runs the company's official circular, 'been established in Edinburgh, Manchester, Liverpool, Glasgow, Hull, and Newcastle, Subscription News Rooms, for the accommodation of the mercantile and professional interests, to which is transmitted by electric telegraph the latest intelligence, including—domestic and foreign news; shipping news; the stock, share, corn, and other markets; parliamentary intelligence; London Gazette; state of the wind and weather from above forty places in England; and the earliest possible notices of all important occurrences.' The 'rate of charges for twenty words is—1d. per mile for the first 50 miles; ½d. for the second 50; and ¼d. for any distance beyond 100 miles.' The lowest charge made is half-a-crown. From London to York for twenty words, the cost would be 9s.; to Edinburgh, 13s.; to Glasgow, 14s.; and to other places in proportion. The number of miles of telegraph in Great Britain at the present time is about 3000, which leaves about 4000 miles of railway unprovided for.

During the last session of parliament a second association was incorporated, to be known as the British Electric Telegraph Company, 'for the purpose of telegraphic communication upon a more economical scale throughout the country, and for the purchase and use of patents.' The company's central office is at the Royal Exchange; they propose to con-

form to the American tariff of charges for the delivery of messages; to sell licences; and establish lines to all the chief towns in the kingdom. One of their projects is to connect Dublin with Belfast, and to cross the Channel from the latter town to Scotland: when completed, the capitals of the three kingdoms will be able to intercommunicate at any moment. And the reduction of charge which may be anticipated from the competition will, it is to be presumed, bring the telegraph more than at present within the means of the general public.

The spread of electric telegraphs in France has been extremely slow: for a long time the government refused to abandon their well-developed system of aerial telegraphs; and when with much reluctance they were induced to avail themselves of the infinitely superior agency of electro-magnetism, they stipulated that the signals should still be produced by small instruments, counterparts on a diminutive scale of the apparatus contrived by Chappe. There were, however, too many practical difficulties in the way, and ultimately the absurd condition was withdrawn in favour of machinery similar to that used in this country, the government reserving to itself the exclusive use and control of the lines. In 1845 and two following years, the telegraphs extending from Paris to Orleans, to Rouen, to Lille and Calais, and the Belgian frontier, and to Versailles, were commenced, and brought into operation. The results were such, that in January 1850 a commission was appointed to inquire further into the subject.

They drew up a favourable report, recommending the formation of additional lines, and the plan of stretching the wires on posts in preference to placing them in tubes underground, and that the telegraphs should be open to the use of the public. Among other economical advantages to result from the further extension, was the saving of locomotive power on railways; for, in accordance with the practice on the French lines, whenever a train was twenty minutes late an assistant-engine was despatched to its relief from one station after another all along the route—an arrangement which not only involved considerable expense, but liability to accident also. The construction of seven telegraphic lines was recommended; five of the number have been officially authorised—from Paris to Tournai, Rouen to Havre, Paris to Angers, Orleans to Châteauroux, and from the same city to Nevers; and by a vote of the Assembly, 717,095 francs are set apart to defray the expenses of the necessary works. To afford the fullest facilities to the government, wires are led from the respective stations in Paris to the hotel of the Minister of the Interior, where the office is now open to the public from 8 A.M. to 9 P.M. every day without exception. Three hundred and one dispatches were transmitted in March, the first month of opening. According to the scale of charges—to send a message of twenty words 62½ miles will cost 3s. 3½d., and 12s. for 620 miles. Two hundred words for the same distances respectively will be 16s. 5d. and 58s. 9d. At this rate, to send a message of 300 words from Paris to Calais (185 miles) would cost more than 35s. The commission state, that from seventy-five to eighty letters may be transmitted per minute. In the course of their report they suggest, that as the line from the capital to Dunkerque is on the meridian of Paris, and one of the points of the great survey for the measurement of an arc of the meridian some fifty years ago,

the establishment of an electric telegraph will afford an excellent opportunity for testing the former by remeasurement. The telegraphs complete and in progress in France are about 1500 miles in length.

In Belgium, a commission was also appointed at the close of 1849 to consider the same subject: the individuals named—one of them being M. Quetelet—were eminently qualified for their duties. After a careful examination of the systems of electro-telegraphic communication employed in other countries—the burying of the wires under ground, as in Prussia, and the stretching of them on posts, as in England and the United States—the liability to accident from premeditated mischief, atmospheric or other causes—they have decided in favour of wires above rather than below the earth. They shew that the disturbances to which the apparatus is liable from electricity of the air is nowhere so effectually guarded against as in England, where conductors are attached to the posts and to the machinery in the offices, and recommend the adoption of similar means of protection on the Belgian lines, which they propose to establish from Brussels to Quiévrain—and to the Prussian frontier; from Malines to Ostend by way of Ghent—and to Antwerp—the several distances amounting to about 300 miles. They estimate the annual receipts and savings from these various sources at 86,000 francs; and acting on their report, the government has granted a credit of 250,000 francs for carrying the projects into execution. The central situation of Belgium with regard to other countries renders the formation of these lines of essential importance in continental communications.

Already the ramifications of electro-telegraphs extend from one end of Europe to the other: the lines to connect Petersburg with Moscow, and with the Russian ports on the Black Sea and the Baltic, are in progress; other wires stretch from the capital of the czar to Vienna and Berlin, taking Cracow, Warsaw, and Posen on the way. Two lines, by different routes—Olmütz and Brunn—unite Vienna with Prague, from whence an offset leads to Dresden; a third enables the Austrian government to send messages to Trieste—their outport on the Adriatic—325 miles distant; a fourth communicates with the metropolis of Bavaria; and 'since the 10th January (1850), the "Gazette d'Augsburg" has published the course of exchange in Munich twenty minutes after it has been declared in Vienna.' Calais may send news to the city of the Magyar on the Danube; and ere-long intelligence will be flashed without interruption from St Petersburg to the Pyrenees. Tuscany has 100 miles of telegraph under the direction of Signor Matteucci; and a single wire, traversing the level surface of the Netherlands, unites Rotterdam with Amsterdam. Communities are learning that the electric telegraph is an essential of good government; that police without it is inefficient; that by it the better interests of humanity are promoted. There is talk also of introducing the thought-flasher into that land of wonders—Egypt; to stretch a wire from Cairo to Suez for the service of the overland mail. Who shall say that before the present generation passes away, Downing Street may not be placed in telegraphic rapport with Calcutta?

In Austria there are about 3000 miles of telegraph, one-fourth being gutta-percha-coated wire laid underground. Germany has 2500 miles complete, and 1200 more in process of construction. The Austrian govern-

ment steamboats are fitted with an electric telegraph for communications from the captain on deck to the engine-room.

In a time when mechanical science scarcely admits the signification of 'impossible,' the insular position of England would not long shut her out from a union with those continental ramifications which we have briefly noticed. The possibility of establishing the connection was satisfactorily proved in August 1850, when a telegraph-wire was sunk across the Channel from Dover to Cape Grisnez, on the French coast. On the 28th of that month, after certain preliminary experiments had been tried, the *Goliath* steamer started with a huge reel containing 25 miles of wire, coated with gutta percha, on her deck, which was slowly unwound and submerged as she left the land. A horse-box was set up on the beach, to serve as a temporary office for the instruments and operators; from which the wire was led through a lead pipe to some distance beyond low-water mark, as a measure of protection in a part the most exposed. A line of buoys marked the track of the steamer; she travelled about four miles an hour, and the wire was gradually sunk at the same rate by means of heavy weights attached at regular intervals. A powerful set of batteries had been provided, as one of the objects was, if possible, to work Brett's printing telegraph; and when the steamer had made good a portion of her voyage, the communication was established, and words were printed at the instrument on board the vessel—imperfectly, it is true; but the fact once verified, the perfecting becomes matter of detail. The needle instrument played freely, and in the evening its signals shewed that the voyage had terminated successfully. A message flashed from under the sea by the opposite party announced, 'We are all safe at Cape Grisnez,' with the inquiry added, 'How are you?' Thus the international communication was complete; but soon after interrupted by the breaking of the wire, which was too weak to withstand the action of the water and friction on a rocky bottom.

As before observed, the possibility having been proved, the Submarine Telegraph Company, whose patent embraces England, France, and Belgium, set about preparations to re-establish the connection, on a scale calculated to obviate the risk of accident. The wires, four or five in number, are to be enclosed in cables several inches in thickness, and from twenty to twenty-five miles in length, each weighing 400 tons. It is proposed to have three or four such cables, to be anchored to the bottom two or more miles apart, so that if one should fail, communication may still be maintained by the others. Expectations are held out that the line may again be brought into working order during the present year (1851.)

It is in the United States of America that the electric telegraph has been most extensively developed and applied. Growing coincidentally with the system so successfully worked in our own country, an almost limitless breadth of territory has necessitated a proportionate extension of the wires, amounting at present to more than 11,000 miles, under the management of twenty-two companies. The lines in many instances are carried across the country, regardless of travelled thoroughfares; over tracts of sand and swamp; through the wild primeval forest, where man has not yet begun his contest with nature—where even the rudiments of civilisation

are yet to be learned. Away it stretches, the metallic indicator of intellectual supremacy, traversing regions haunted by the rattlesnake and the alligator—solitudes that re-echo with nocturnal howlings of the wolf and bear. Economy and rapidity of construction are prime desiderata in America; and to insure the proper working of the telegraph in its direct course across the country, the settlers who live near the line are permitted to make use of it on condition that they keep it in repair. By this means communications are maintained from north to south, east and west, through all the length and breadth of the mighty Union, and with a frequency and social purpose exceeding that of any other nation. From the frontiers of Canada at Burlington, and from Halifax in Nova Scotia, a line passes to Boston, and thence in a southerly direction till it reaches the Gulf of Mexico at New Orleans—a distance of 2600 miles. It connects all the great cities of the Atlantic coast—New York, Philadelphia, Baltimore, Washington, Richmond in Virginia, Raleigh and Columbia in South Carolina, Augusta in Georgia, and Mobile in Alabama. In one stretch Maine and Vermont, where winter with deepest snows and arctic temperature usurps six months of the year, are united with the lands of the tropics, where the magnolia blooms and palm-trees grow in perpetual summer. From New Orleans another nerve of wire, more than 1000 miles long, threads the valleys of the Mississippi and Ohio to Louisville and Cincinnati; and subordinate lines bring the great lakes—the inland seas—into direct communication with the ocean-ports on the eastern shore. In some instances the rivers are spanned by wires stretched on tall poles, or laid in tubes of gutta serena along the bottom of the wider channels or estuaries. Nothing stops the restless, enterprising spirit of the people; and their project for uniting the Atlantic with the Pacific, New York with San Francisco, may be considered as far from visionary.

The scale of charges in the United States is much lower than in this country: the electric telegraph is consequently more available to the greater part of the population engaged in commercial affairs. A message of ten words may be flashed from New York to St Louis, Missouri, for 1 dollar and 40 cents—each additional word being charged 3 cents; to Cincinnati, 75 cents; to Buffalo, 500 miles, 40 cents; to Boston, 220 miles, 20 cents; to New Orleans, 2½ dollars; and other places in proportion. The transmitting apparatus used on the different lines is that severally invented or contrived by Morse, House, and Bain; it prints the dispatches as fast as they are delivered. On the meeting of the legislature at Albany in 1847, the governor's message, 25,000 letters, was flashed to New York, 150 miles distant, and printed at the same time in two hours and a half. The president's message, too, on the war with Mexico, was transmitted from Washington to Baltimore, 40 miles, and permanently recorded at the rate of ninety-nine letters a minute. Mr Morse in his Reports to Congress mentions several instances of the utility of the telegraph. During the popular disturbances at Philadelphia in 1844, 'sealed dispatches were sent by express from the mayor of Philadelphia to the president of the United States. On the arrival of the express at Baltimore, the purport of the dispatches transpired; and while the express train was in preparation, the intelligence was sent on to Washington by telegraph, accompanied by an order from the president of the railroad company to prevent the burden-

train from leaving until the express should arrive. The order was given and complied with. The express had a clear track, and the president and cabinet (being in council) had notice both of the fact, that important dispatches were on the way to them, and of the nature of those dispatches; so that when the express arrived, the answer was in readiness for the messenger.' Again: 'When the *Hibernia* steamer arrived at Boston in January 1847, with news of the scarcity in Great Britain, Ireland, and other parts of Europe, and with heavy orders for agricultural produce, the farmers in the interior of the state of New York, informed of the facts by magnetic telegraph, were thronging the streets of Albany with innumerable team-loads of grain almost as quickly after the arrival of the steamer at Boston as the news of that arrival could ordinarily have reached them.'

Apart from business and politics, the Americans have made the electric telegraph subservient to other uses: medical practitioners in distant towns have been consulted, and their prescriptions transmitted along the wire; and a short time since a gallant gentleman in Boston married a lady in New York by telegraph—a process which may supersede the necessity for elopement, provided the law hold the ceremony valid. Music, or at least the rhythm of music, has been conveyed by the same wonderful agency. The observer of the fact in New York tells us: 'We were in the Hanover Street office when there was a pause in business operations. Mr W. Porter of the office at Boston asked what tune we would have. We replied 'Yankee Doodle,' and to our surprise he immediately complied with our request. The instrument commenced drumming the notes of the tune as perfectly and distinctly as a skilful drummer could have made them at the head of a regiment; and many will be astonished to hear that 'Yankee Doodle' can travel by lightning. We then asked for 'Hail Columbia!' when the notes of that national air were distinctly beat off. We then asked for 'Auld lang syne,' which was given, and 'Old Dan Tucker,' when Mr Porter also sent that tune, and, if possible, in a more perfect manner than the others. So perfectly and distinctly were the sounds of the tunes transmitted, that good instrumental performers could have had no difficulty in keeping time with the instruments at this end of the wires.'

A favourable idea of the immediate practical utility of the telegraph may be gathered from a communication to the present writer by a friend in New York:—'The telegraph,' he writes, 'is used in this country by all classes, except the very poorest—the same as the mail. A man leaves his family for a week or a month; he telegraphs them of his health and whereabouts from time to time. If returning home, on reaching Albany or Philadelphia, he sends word the hour that he will arrive. In the towns about New York the most ordinary messages are sent in this way: a joke, an invitation to a party, an inquiry about health, &c. In our business we use it continually. The other day two different men from Montreal wanted credit, and had no references; we said: "Very well; look out the goods, and we will see about it." Meanwhile we asked our friends in Montreal—"Are Pump and Proser good for one hundred dollars each?" The answer was immediately returned, and we acted accordingly; probably much to our customers' surprise. The charge was a dollar for each message, distance about 500 miles, but much further by telegraph, as it has to go a round to avoid the water. If my brother goes to Philadelphia, he

telegraphs, "How is the family?" "What is doing?" I answer: "All well"—"Sales so much;" and so on to the end of the chapter.

'A good deal of our telegraph was put up slightly at first, and was often destroyed by storms. Now it is made with heavier wire, on posts from eight to twelve inches diameter. The lines cross the North River (the Hudson), suspended from the top of a very high pole on each side, placed on the top of the hills. The wire goes over at one stretch; the distance about a mile, but still hanging high enough in the centre to allow the tallest ships to pass under it. At the offices they are accommodating, and will inquire about messages that have miscarried, or have not been answered, without extra charge.'

The electric clock was an obvious result of the electric telegraph: a plate of zinc and another of copper buried in the earth, and connected by wires with the wheelwork, develop sufficient natural magnetism to keep a time-keeper going with the strictest regularity for several years. As the pendulum swings, contact is alternately made and broken, and this action will continue until the plates are exhausted. With currents supplied from a battery, it is clear that the movement may become perpetual; and by means of telegraphic communications, any number of clocks may be made to move synchronously with one central clock regulated by astronomical observation; each would advance a second or portion of a second at one and the same beat. The invention of this remarkable machine is due to Mr Wheatstone, who proposed it to the Astronomical Society ten years ago, when the wide applicability of the principle gave rise to the remark, that it would soon become as possible to have time 'laid on' to our houses as water or gas. One possibility suggests another, and presently we find the Americans making use of the electric telegraph to determine differences of longitude. Supposing the time-keeper of the Greenwich Observatory in communication with a clock at Edinburgh, the latter would beat Greenwich time, whereby the difference between the two places would be determined to the fraction of a second. The means of intercommunication being so rapid, comparisons can be instituted to any extent, and the severest tests applied to insure accuracy; and by the aid of the printing apparatus, the observations are recorded at the precise instant of their occurrence. The first experiment was tried along the telegraph from Cincinnati to Pittsburg, by Dr Locke of the former city, who contrived some ingenious machinery for the purpose. We are informed that 'it was eminently successful, and the registering of the seconds of time on the running fillet of paper was continued for two hours at all the offices along the line, much to the astonishment of the operators.' The officer of the United States Coast Survey regards 'the value of a night's work with a transit instrument by the printing method, as about ten times greater than by the method now in use among astronomers.' In the Report for 1848 we read: 'This year we made abundant experiments on the line from Philadelphia to Louisville, a distance in the air of 900 miles, and in circuit of 1800 miles. The performance of this long line was better than that of any of the shorter lines has hitherto been.'

'Not more than two or three good astronomical nights, at Cincinnati and Philadelphia, were lost, by failure of any part of the line, in the period of

two months nearly of our stay at Cincinnati. I learn from an authentic source that the same success attends the work from Philadelphia to St Louis, a distance of circuit one-twelfth of the earth's circumference.' Great as this distance is, an attempt is to be made to exceed it as soon as circumstances permit, on the line from Halifax to New Orleans, in determinations of longitude.

This method of observing is regarded by the astronomer-royal as of so much importance, that he proposes to introduce it at Greenwich. In discussing the subject before the Astronomical Society, he explained that: 'In ordinary transit observations, the observer listens to the beat of a clock while he views the heavenly bodies passing across the wires of the telescope; and he combines the two senses of hearing and sight (usually by noticing the place of the body at each beat of the clock) in such a manner as to be enabled to compute mentally the fraction of the second when the object passes each wire, and he then writes down the time in an observing-book. In these new methods he has no clock near him, or at least none to which he listens: he observes with his eye the appulse of the object to the wire, and at that instant he touches an index, or key, with his finger; and this touch makes, by means of a galvanic current, an impression upon some recording apparatus (perhaps at a great distance), by which the fact and the time of the observation are registered. He writes nothing, except perhaps the name of the object observed.'

The experience hitherto obtained of the new method shews that in what are termed 'irregularities' in observation, the amount 'is only about one-fourth' of that which occurs in the old method; whether because the sympathy between the eye and the finger is more lively than between the eye and the ear, remains to be determined. The astronomer-royal proposes to use the 'centrifugal or conical-pendulum clock' as an instrument superior in every way to those used in America; and 'considering,' as he states, 'the problem of smooth and accurate motion as being now much nearer to its solution than it had formerly been, it might be a question whether, supposing a sidereal clock made on these principles to be mounted at the Royal Observatory, it should be used in communicating motion to a solar clock. It might by some persons be thought advantageous, even now, that the drop of the signal-ball (at one hour Greenwich mean solar time) should be effected by clock machinery; and it is quite within possibility that a time-signal may be sent from the Royal Observatory to different parts of the kingdom at certain mean solar hours every day, by a galvanic current regulated by clock machinery.' We may add that at Boston, U. S., the true time is received every day from the Cambridge observatory, four miles distant, for the service of the shipping in the harbour.

Meteorological, as well as astronomical science, is also to be promoted by means of the telegraph, and with benefit to life and property. Vessels about to sail from the northern to the southern ports of the United States are now detained when news arrives of a storm or tornado having broken out in the lower latitudes; and in our own country the state of the weather is communicated every day from stations in all parts of the kingdom to one central office, where the returns are published. Many valuable results have already been obtained; and with further experience in working out the system, it will prove directly and practically advantageous.

The disturbances to which the electric telegraph is liable from atmospheric and other causes, present several phenomena of interest to the scientific observer. During thunder-storms the needles are sometimes violently agitated, or altogether deprived of their electricity; and the influence of the earth's magnetism is frequently such as to cause considerable deflections, even where the wires are under ground. Mr Barlow of Derby, in an account of his experiments on this latter subject, published in the 'Philosophical Transactions,' states that a regular diurnal action of the needles is produced, independently of the batteries, on telegraph wires connected with the earth in two places: where not so connected, no deflection is observable. He considers, 'that this motion is due to electric currents passing from the northern to the southern extremities of the telegraph wires, and returning in the opposite direction; and that, exclusive of the irregular disturbances, the currents flow in a southerly direction from about 8 or 9 A.M. until the evening, and in a northerly direction during the remainder of the twenty-four hours.' Sometimes the perturbations are coincident all over the kingdom, as was the case on September 24, 1847, when sudden deflections of the needles occurred from Devonshire to Scotland, and were also observed in other parts of the world at the same time. The aurora, too, is another exciting cause. Mr Barlow believes that he can predict this phenomenon from the movements of the needles, and is supported in his views by other observers. According to De la Rive: 'The remarkable effect which M. Matteucci observed in the apparatus of the electric telegraph between Ravenna and Pisa, during the magnificent aurora of November last, shews clearly the existence of a current circulating upon the surface of the earth; and which, rising by the telegraph wire, passed partly by this better conductor. The sounds which are given in certain meteorological circumstances by long iron wires stretched in a north and south direction, are clear evidence that they are traversed by a current which probably arises from those which circulate upon the surface of the earth from north to south in our hemisphere. It would be very interesting to take advantage of telegraph wires having a direction more or less coincident with that of the declination of the needle, for the purpose of making, when they are not in use for their usual purposes, some observations to detect and measure the electric currents which probably traverse them—which could be easily done by completing the communication of these wires with the ground at one of their extremities by means of a multiplying galvanometer. The comparison of results thus obtained, with those of simultaneous observations of the diurnal variations of the magnetic needle, would certainly present much interest, and might lead to meteorological conclusions of a remarkable kind.' It is said that when telegraph lines are erected in India, some particularly interesting phenomena of terrestrial magnetism will be witnessed.

Our brief historical sketch offers another exemplification—and not among the least interesting—of the onward workings of the human mind. From timid and uncertain beginnings the electric telegraph has advanced to a high state of usefulness and perfection. Available alike for the humblest of social purposes, and the daring endeavours of science, it reaches a supereminent point when the measured flight of time, the movements of stars and planets, and investigations of atmospheric and

magnetic mysteries, become the subject of its transcendental powers. In contemplating the nature and scope of the phenomena, we may say without irreverence that the sublime inquiry—'Canst thou send lightnings, that they may go, and say unto thee, Here we are?'—has, in one grand sense, been answered in the affirmative.

THE ELECTRIC TELEGRAPH.

Hark! the warning needles click,
Hither—thither—clear and quick.
Swinging lightly to and fro,
Tidings from afar they shew,
While the patient watcher reads
As the rapid movement leads.
He who guides their speaking play
Stands a thousand miles away.

Sing who will of Orphean lyre,
Ours the wonder-working wire!

Eloquent, though all unheard,
Swiftly speeds the secret word,
Light or dark, or foul or fair.
Still a message prompt to bear:
None can read it on the way,
None its unseen transit stay.
Now it comes in sentence brief,
Now it tells of loss and grief,
Now of sorrow, now of mirth,
Now a wedding, now a birth,
Now of cunning, now of crime,
Now of trade in wane or prime,
Now of safe or sunken ships,
Now the murderer outstrips,
Now it warns of failing breath,
Strikes or stays the stroke of death.

Sing who will of Orphean lyre,
Ours the wonder-working wire!

Now what stirring news it brings,
Plots of emperors and kings;
Or of people grown to strength
Rising from their knees at length:
These to win a state—or school;
Those for flight or stronger rule.
All that nations dare or feel,
All that serves the commonweal,
All that tells of government,
On the wondrous impulse sent,
Marks how bold invention's flight
Makes the widest realms unite.

It can fetters break or bind,
Foster or betray the mind,
Urge to war, incite to peace,
Toil impel, or bid it cease.

Sing who will of Orphean lyre,
Ours the wonder-working wire!

Speak the word, and think the thought,
Quick 'tis as with lightning caught,
Over—under—lands or seas,
To the far antipodes.
Now o'er cities thronged with men,
Forest now or lonely glen;
Now where busy Commerce broods,
Now in wildest solitudes;
Now where Christian temples stand,
Now afar in Pagan land.
Here again as soon as gone,
Making all the earth as one.
Moscow speaks at twelve o'clock,
London reads ere noon the shock;
Seems it not a feat sublime,
Intellect hath conquered Time!

Sing who will of Orphean lyre,
Ours the wonder-working wire!

Flash all ignorance away,
Knowledge seeks for freest play;
Flash sincerity of speech,
Noblest aims to all who teach;
Flash till bigotry be dumb,
Deed instead of doctrine come;
Flash to all who truly strive,
Hopes that keep the heart alive;
Flash real sentiments of worth,
Merit claims to rank with Birth;
Flash till Power shall learn the Right,
Flash till Reason conquer Might;
Flash resolve to every mind,
Manhood flash to all mankind.

Sing who will of Orphean lyre,
Ours the wonder-working wire!

FICHTE: A BIOGRAPHY.

IN the middle of the eighteenth century, at the village of Rammenau, near Pulsnitz, in Upper Lusatia, there lived and worked among his contemporaries a certain manufacturer of ribbons, named Christian Fichte. He, recently married, and reputably established in trade there, paying rates and taxes, and other like dues and imposts, cheerfully fronted the world, and took thankfully from fortune whatever benefits she sent him.

Among the most memorable of these was a first-born son, who struggled into existence on the 19th of May 1762. This is he who, being subsequently baptised according to orthodox prescription, was thereafter called by the name of Johann Gottlieb Fichte—a name since considerably well known, and not indifferently respected, by all persons who are anywise acquainted with German Transcendentalism.

As the boy grew up he shewed signs of extraordinary capacity, and waxed steadily in favour with all who were interested in his welfare. Long before he was old enough to be sent to school his father had taught him to read; taught him also a number of pious songs and proverbs, and initiated him somewhat into the higher mysteries of Bible-history and the Catechism. Often, by way of entertaining his curiosity, the father would relate to him the story of his personal wanderings in Saxony and Franconia, whither, in conformity with a well-known German usage, he had gone in former years for improvement in his calling. To these recitals young Gottlieb listened with exceeding interest, and was thereby awakened into some vague sympathy with the existing outward world. The wonder and manifold train of feelings thus excited fostered in the boy a fondness for solitary rambles, and often impelled him forth into the lonely and quiet fields, where for many hours he would hold a still communion with his thoughts. A quiet, pensive child, he was already receiving influences and forming habits which were afterwards to grow to great results.

Among the persons whose attention young Fichte very soon attracted was the clergyman of the village, who, perceiving his talents, often assisted him with instruction. Happening one day to ask him how much he thought he could remember of the last Sunday's sermon, the boy astonished the good pastor by giving a very correct account of the course of argument pursued in the discourse, and also of the several texts of Scripture quoted in illustration. This circumstance was subsequently mentioned incidentally to a nobleman residing in the village; and when, a short time afterwards,

a certain Baron von Miltitz, who was on a visit at the castle, chanced to express his regret at having arrived too late for sermon on the Sunday morning, he was half-jestingly apprised that it was of very little consequence, as there was a boy in the neighbourhood who was capable of repeating it from memory, and might easily be sent for, if desired, to reproduce it for the baron's edification. A messenger was presently despatched for little Gottlieb, who very soon appeared, dressed in a clean smock-frock, and bearing in his hand a most enormous nosegay, as a token of respect from his mother to the mistress of the castle. He answered all questions put to him with a quiet and natural simplicity; and on being requested to repeat as much as he could recollect of the morning's sermon, he proceeded to deliver a long and eloquent discourse, which, from its grave and impressive tendency, threatened rather to discompose the gaiety of the company. Desiring to escape this consummation, the count thought it necessary to interrupt him, signifying doubtless that, of an admirable memory and good natural powers of elocution, a sufficient proof had been exhibited. The young preacher, however, interested his auditory greatly, and more especially the baron, who, after making some inquiries of the clergyman, which were favourably answered, determined to undertake the charge of the boy's education. The consent of the parents having been with difficulty obtained, young Fichte was shortly consigned to the care of his new patron, and departed with him, as it seemed, for foreign parts.

His destination was the castle of Siebencichen, a country seat of the baron, situated on the Elbe, near Meissen. Here the heart of the poor boy sank within him, as he daily contemplated the gloomy grandeur of the baronial hall, and the mountains and dark forests by which it was surrounded. His first sorrow, his earliest trial, had come to him in the shape of what a misjudging world might regard as a singular piece of good fortune; and so deep a dejection fell on him, as seriously endangered his health. His kind fosterfather, entering into the feelings of the child, prudently removed him from the lordly mansion to the residence of a country clergyman in the neighbourhood, who, though himself without family, was greatly attached to children. Under the care of this worthy pastor and his wife, Fichte passed some of the happiest years of his life, and ever afterwards looked back upon them with tenderness and gratitude. Here he received his first instruction in the ancient languages, in which, however, he was left pretty much to his own efforts, seldom receiving what might be called a regular lesson from his teacher. This plan, though it might invigorate and sharpen his faculties, left him imperfectly acquainted with grammatical principles, and retarded to some extent his subsequent progress. He, nevertheless, made rapid advances; and his preceptor soon perceived the insufficiency of his own attainments for furthering the studies of a pupil so promising, and therefore urged upon his patron the desirability of sending him to some public school. He was accordingly sent, first to the town school of Meissen, and afterwards to a higher seminary at Pforta, near Raumburg.

This latter establishment retained many traces of a monkish origin: the teachers and pupils lived in cells, and the boys were permitted to leave the interior only once a week, and then under inspection, to visit a particular play-ground in the neighbourhood. The stiffest formality pervaded the

whole economy of the place; the living spirit of knowledge was unrecognised in its antiquated routine, and the generous desire of excellence excluded by the petty artifices of jealousy. The system of fagging existed in full force, and with it the usual consequences—tyranny on the one side, and cunning and dissimulation on the other. Fichte's native strength of character guarded him somewhat from the evil influences around him, yet he confessed that his life at Pforta was anything but favourable to his integrity. He found himself gradually reconciled to the constraint of ruling his conduct by the opinion of his companions, and compelled to practise occasionally the same artifices as others.

Fichte was scarcely thirteen years of age when he entered this seminary. Most painful was the transition to its gloomy monastic buildings from the joyous freedom of fields and woods, where he had been accustomed to wander at will; but still more painful were the solitude and aridity of the moral desert into which he was introduced. His sadness and tears exposed him to the derision of his schoolfellows: and he, shy and retiring, shrunk within himself, restrained his tears, or suffered them to flow only in secret. Here, however, he learned the useful lesson of self-reliance—so well, though so bitterly taught, by the absence of sympathy in those around us; and from this time to the close of his life it was never forgotten. The wretchedness of his situation meanwhile, led him to contemplate escape. He had met with a copy of 'Robinson Crusoe,' and his imagination was so fascinated by the wild solitary life therein depicted, that he conceived the project of seeking out some similar seclusion. On some far-off island of the ocean, beyond the reach of men and pedagogues, and of the sneering students that mocked at his distress, he would fix his solitary dwelling-place, and live golden days of happiness and freedom! The manner in which he attempted to carry his notion into execution favourably illustrates the bent of his character. Nothing could have been easier for him than to have departed unperceived on one of the days when the scholars went out to the playground; but he scorned to steal away in secret; he wished to make it evident that his departure was occasioned by necessity, and was taken with deliberate determination. He therefore made a formal declaration to his superior, a lad who had made a cruel and oppressive use of the brief authority intrusted to him, that he would no longer endure the treatment he received, and that if not amended, he would leave the school on the first opportunity. This announcement, as may be supposed, was received with laughter and contempt, and Fichte thenceforth considered himself in honour free to fulfil his resolution.

Accordingly, one morning he departs, having previously studied his intended route upon the map. He is off on the highway to Raumburg: the world is all before him, and the desert island in the distance. But now, as he walks along, he remembers a saying of his dear old friend the pastor, that one should never begin an important undertaking without a prayer for Divine assistance. He turns, therefore, and kneeling down on a hillock by the side of the road, in the innocent sincerity of his heart he implores the blessing of Heaven on his wanderings. As he prayed it occurred to him that his disappearance must occasion great grief to his parents: 'never, perhaps, might he see them again!' This terrible thought overcame him; the joy which he had felt in his emancipation was changed into

contrition; and he resolved to return, and meet all the punishments that might be in reserve for him, so that he should be able to 'look once more on the face of his mother.' On his way back he met those who had been sent in pursuit of him; for as soon as he had been missed, the conversation between him and his superior had been reported to the authorities. When taken before the rector, Fichte immediately admitted that it had been his intention to run away, but at the same time related the whole story of his persecutions, and of the motives which had influenced him in taking the step, with such straightforward simplicity and openness, that the rector became interested in his behalf, and not only remitted his punishment, but selected for him, from among the elder scholars, another senior, who treated him with the greatest kindness, and to whom he became warmly attached, the two being subsequently friends at the same university.

From this time Fichte's residence at Pforta was rendered gradually more tolerable to him. He entered zealously upon his studies, and by continued industry supplied the defects of his previous education. In 1780, at the age of eighteen, he entered the university of Jena. He attached himself to the theological faculty, his inclinations at this time being towards the calling of a clergyman. Subsequently he removed to Leipsic, and there attended a course of dogmatic lectures, though, as it afterwards appeared, with little satisfaction. In attempting to obtain a clear comprehension of the theological doctrine of the Divine attributes, the creation, freedom of the will, and other like questions, he encountered unexpected difficulties, which led him into a wider circle of inquiry, and finally resulted in his abandoning theology for philosophy. Some hints of the early direction of his philosophical studies may be gathered from his letters written at this period. The question which chiefly engaged his attention appears to have been the very common one of Liberty and Necessity; in regard to which he seems to have rejected the doctrine of free-will, considered as absolute indifferent self-determination, and to have adopted the view which, to distinguish it from Fatalism, has been named *Determinism*. According to this, every complete and consistent philosophy exhibits a deterministic side; the idea of an ultimate and all-directing Unity being the beginning and end of metaphysical investigation. Thus while Fatalism sees in this highest unity only an unconscious and mechanical necessity, Determinism recognises it as the highest disposing reason—the infinite originitive influence to which the determination of each living being is not only to be referred, but in which it is fundamentally subsistent.

On communicating his opinions to a Saxon preacher who had considerable reputation for his philosophical attainments, Fichte was told that he had adopted Spinozism. Up to this time he was unacquainted with Spinoza's writings, and his first knowledge of them was subsequently derived through Wolf's refutation. His attention being turned in this direction, he applied himself to the study of Spinoza's Ethics, which made a powerful impression upon his mind, and confirmed him for a time in the opinions he had adopted. In afteryears, however, the deterministic theory left him dissatisfied; the indestructible feeling of independence and freedom of which he was inwardly conscious, and which was also powerfully confirmed by the energy of his own character, not being explainable on exclusively deterministic principles, he was constrained to abandon that

point of view, and accept the doctrine of free self-determination as the only true and intelligible basis of being.' This is the ground-principle of his philosophic creed, which so far stands opposed to the doctrine of Spinoza, although a general harmony of details is observable in the two systems; both, nevertheless, shewing marks of individual character, and each being properly the 'scientific expression of the spiritual life of its originator.'

Whilst engaged in these lofty speculations, Fichte received intelligence of the death of his benefactor, and found himself thrown upon his own resources. These, unhappily, were of the most unpromising description. Nevertheless he adjusted himself to his fortunes, and for four years earned a precarious livelihood as an occasional tutor in various houses in Saxony. His studies were desultory, and subject to continual interruption; he had no means for procuring books, no opportunities of intercourse with persons of cultivated and matured mind: his life was daily little better than a sacrifice to the mere necessity of living. He had, however, a very sufficient fund of courage, an iron resolution, and a hopeful elasticity of disposition, that would not readily yield to disappointment. He learned to regard the privilege of existence apart from its contingencies, and manfully determined to live obediently to the high and imperative law of his conscience, and abide by the result. 'It is our business,' said he, 'to be true to ourselves; the consequence is altogether in the hands of Providence.' Diligent in business, fervent in spirit, he went on his way doing what came to hand; thankful for the day of small things, and trustful for the future.

His favourite plan of life at this period, and for some time afterwards, was to become a village clergyman in Saxony, and amid the leisure which such an occupation would afford him, to prosecute without disturbance his own intellectual culture. But this scheme could not be carried into practice, inasmuch as he had not completed his theological studies, and was without the means required for continuing them. With a view to supply his deficiencies in this respect, he, in 1787, addressed a letter to the president of the Consistory of Leipsic, requesting to be allowed a share of the support often granted to poor students at the Saxon universities, until the following Easter, at which time he promised to present himself before the Consistory for examination. 'Without this,' said he, 'my residence at Leipsic is of no avail to me, for I am compelled to give all my time to extraneous pursuits, in order to obtain a livelihood.' No notice, however, was taken of his request: that blissful Saxon parsonage, with its abundant leisure for cultivating literature, so pleasant to contemplate, remained, unhappily, or perhaps happily, incapable of being realised.

Put not your trust in princes, nor in any president of Consistory, for, as thou perceivest, dear Fichte, there is no help in them! That selfsame 'poverty' of thine, which thou sayest can be so 'clearly proved,' is, as matters go, no recommendation to preferment. For the present thou must continue to make that thin resource of private teaching serve thee, and crush into annihilation all thy prouder aspirations. Fichte contrives to make it serve him for a time; but alas! that also, like every feeble soil that is much wrought in, runs more and more into barrenness. The 'precarious subsistence' which he had for some time gained in this way

went on gradually diminishing, and ultimately failed altogether. 'In May 1788 every prospect had closed around him, and every honourable means of advancement seemed to be exhausted. The present was utterly barren, and there was no hope in the future.'

It is the eve of his birthday, in this same month of May. The pensive fancy figures him walking disconsolately about the environs of Leipsic, the balmy evening air blowing fresh upon his cheek; birds of various note warbling softly their May-night vespers, or nestling with placid murmurings in the fields. He walks, as we said, disconsolately; pondering with unavailing anxiety all the projects which it has entered into his mind to devise, and finds them all alike hopeless. The world has cast him out—his country has refused him bread; this approaching birthday, for aught he can tell, may prove to be his last. Doubtless people *have* died of starvation—why not he? Full of bitter thoughts, he returns, as it appears: likely for the last time, to his solitary and uncheerful lodging.

Can this be really a *letter* lying on the table? Yes, Fichte, even so: or say rather, a hastily-written note—a note from friend Weisse, the tax-collector, requesting thee to step over to his house without delay. What can so peremptory a summons signify? It turns out that friend Weisse is authorised to make him the offer of a tutorship in a private family at Zurich. Here is fortune returning to shake hands with us after having resentfully bidden adieu: or call it, if you will, a friendly rope thrown to us by an unknown Providence, at the very moment when we were in the extremity of sinking. The sad, disconsolate face brightens up into a joyous smile; the bitterness of despondency is past; warm-hearted thanks ensue, and confidential explanations. The offer is straightway accepted—the worthy tax-collector undertaking to advance the needful for the journey.

How Fichte lived in the interval does not appear; but behold him now in August setting out for Switzerland. His scanty finances compel him to travel on foot; but his heart is as light as his purse, and fresh youthful hopes, mingling with the harvest sunbeams, shine brightly on his path. Disappointment and privation seem left behind him, morose companions of his foregone pilgrimage; for yonder in Liberty's own mountain fastnesses, which Tell has consecrated by the light of bravery and of genius for evermore, he is now to find a welcome and a home. So feels and muses our incipient philosopher, journeying on foot to that private tutorship at Zurich.

Thither he arrived on the 1st of September, and was immediately installed into his office. His duties occupying him the greater part of the day, his philosophical studies were necessarily laid aside, but he nevertheless found time for some minor literary pursuits. He preached occasionally in Zurich, and at several places in the neighbourhood, as it is said, with very distinguished acceptance and success. During his residence here he became acquainted with Lavater and several other literary men; through some of whom he was introduced to a local notability named Rahn, whose house is said to have been 'in a manner the centre of the society of Zurich.' This Rahn had married a sister of Klopstock, who, however, was at this time dead, having left behind her, among other representatives, a rather interesting eldest daughter.

Fichte has already tolerable skill in languages; but now, for his behoof

he is about to learn another. He gets to understand the alphabet of bright eyes, and is shortly qualified to construe the fine Delectus of a woman's love. His teacher in this case, as the reader is probably prepared to hear, was this same 'interesting eldest daughter' of collateral-poetical relationship—Johanna Maria Rahn. She seeing him, and hearing him speak oftentimes manfully at her father's table, cast kind glances on him, as one worthy of a maiden's blessing. Her generous pure-mindedness gave her assurance here of the presence of a man such as in moments of maidenly meditation she might perchance have fancied she could rather love than otherwise. He, truly, is but a poor tutor, and somewhat proud withal, with a dash of blunt honesty and impetuosity; very unlike the 'nice young men' of ordinary tea-parties, whom, it would seem, the good Johanna persisted in keeping at a distance; for we are authentically informed that she, in her time, had refused a moderate number of 'very excellent offers.' Fichte, however, belongs to quite another category. Accordingly, from glances it gets to smiles and signs of welcome recognition, and so onwards to a more perfect understanding. We suspect that Father Rahn did not at first perceive the turn things were taking in his household; nevertheless, we are prepared to justify Fichte and his fair beloved before any manner of tribunal, if needs be, for the decided fashion in which they set about loving each other (being thereto inwardly necessitated) without leave asked of any one. If our Othello had gone, cap in hand, to the old burgher, and respectfully explained his intentions in the beginning—Fichte being, as we know, a poor, unprovided tutor, and his Desdemona the daughter of a Zurich notability with expectations—it is highly probable that he would have been refused, and he must thereby have lost a very admirable wife; as, on the other hand, the lady herself would have also lost an extremely desirable husband; which, according to our notions, would have been a great misfortune for both parties. As it was, however, the affair went on agreeably, and ultimately prospered. There seems to have been a good deal of correspondence between them, even while Fichte remained in Zurich; which circumstance leads us to suppose that opportunities for private interview were far from being frequent. As love-letters, distinguished by genuine common sense, warmth of feeling, and the absence of absurdity, are held to be extremely rare, and might with certain persons be matters of curiosity, we regret that lack of space prevents us from inserting here some few select passages from these epistles of Fichte to Johanna. Let readers of sentiment be nevertheless assured that here, in old Zurich, went on and unfolded itself, in pleasing sequence and variety, an actual and beautiful romance; which romance also was destined to be chequered by a few unwelcome shades of anxiety and disappointment.

For now, at the end of two years, Fichte's engagement reaches its termination. There is consequently a painful, regretful parting, sorrowful professions of heart-anguish, earnest and solemn interchange of vows, an unspeakable immutable attachment on both sides passionately declared; and so they are separated for a time. For the rest, Fichte's tutorship, besides being distinguished by his zealous performance of its duties, had also been remarkable for a rigorous moral supervision extending to all parties concerned in it. The parents of his pupils, although neither per-

fectly comprehending his plans, nor approving of that part which they did comprehend, were nevertheless such admirers of his character, and stood in such respectful awe of him, that they were induced to submit their own conduct towards their children to his judgment. In furtherance of his object, Fichte kept a journal, which he laid before them every week, and in which he had noted the faults of conduct whereof he conceived them to have been guilty. Of course such a domestic censorship could not last long; and that it should have lasted so long as it did, has been justly considered sufficient evidence of the respect in which his character was held. In less than two years, however, it had become irksome, insupportable, and ended at length in mutual dissatisfaction. Rahm, to whom the attachment between Fichte and his daughter had been in due time communicated, endeavoured to obtain for him a superior situation through certain of his connections in Denmark, but appears to have been unsuccessful in the attempt: Fichte was therefore thrown once more upon the world, his outward prospects as uncertain as when he first entered Switzerland.

Towards the close of March 1790 he left Zurich on his return to his own country, bearing with him some letters of introduction to persons of influence at the courts of Weimar and Wirtemberg. As formerly, he performed the greater part of his journey on foot. He reached Stuttgard in the beginning of April; but not finding his recommendations to the Wirtemberg court of much advantage, he shook off the dust from his feet, and trudged on to Saxony. Visiting Weimar, he expected to see Herder, Goethe, and Schiller, but here again was disappointed; Herder was ill, Goethe in Italy, and Schiller too much engaged with his historical professorship at Jena to receive visitors. About the middle of May he is once more in Leipzig, his small stock of money exhausted by the expenses of his journey. Friend Weiss receives him kindly, but for the rest he meets with little welcome. The old practice of private teaching is resorted to—unhappily with small success. Meanwhile the natural cravings and unspeakable necessity for bread and cheese get rather pressing. What is there that an honest incipient philosopher can turn his brains to and live thereby?

Fichte has long had a secret turn for authorship, and has by him even now certain miscellaneous essays, which the kind Johanna, with characteristic simplicity, had desired him to publish while at Zurich, and thereby create a sensation. He, with profounder judgment, had answered that such a publication could not have the wonderful effect which she expected—that same capacity for producing a ‘sensation’ being neither in him nor his compositions. But now the need of provender growing paramount, he seriously applies himself to literature, that being, as all the world knows, a universal refuge for the destitute. He conceived the plan of a monthly literary journal, ‘the principal objects of which should be to expose the dangerous tendencies of the prevalent literature of the day; to shew the mutual influence of correct taste and pure morality, and to direct its readers to the best authors, both of past and present times.’ This projected undertaking was considered excellent by all to whom it was communicated, and even admitted to be a decided requirement of the times, but was nevertheless held to be liable to one grave objection—he would never find a publisher. The thing was too much opposed to the interests

of the booksellers to meet with any countenance from them. 'I have therefore,' said Fichte, 'out of sorrow, communicated my plan to no bookseller, and I must now write—not pernicious writings, that I will never do, but something that is neither good nor bad, in order to earn a little money. I am at present engaged upon a tragedy, a business which, of all possible occupations, least belongs to me, and of which I shall certainly make nothing; and upon novels, small romantic stories, a kind of reading which is good for nothing but to kill time; this, however, it seems, is what the booksellers will accept and pay for.'

Fancy Isaac Newton, with the confused elements of a 'Principia' circulating in his brain, constrained to write installation odes or opera criticisms for the 'Morning Post,' or fancy, if you will, some impetuous rhinoceros set to draw water from the well at Carisbrook Castle, in the place of the celebrated donkey so long accustomed to it; and you will have some notion of Fichte's tragical labour of writing tragedies and short romantic stories, adaptable for purposes of temporicide. It was sufficiently intolerable while it lasted, and utterly fruitless in results. Moreover, the difficulty of obtaining regular employment at it put him upon the necessity of trying other schemes; his life was one of continual shifts and expedients, whereby, with his utmost efforts, he could scarcely realise the scantiest subsistence. Once he writes: 'In regard to authorship, I have been able to do little or nothing, for I am so distracted and tossed about by constant schemes and undertakings, that I have had few quiet days.' Finally, by way of abandonment of the whole despicable business, he determines that if ever he becomes an author, it shall be on his own account. 'Authorship, as a trade,' says he, 'is unfit for me. It is incredible how much labour it costs me to accomplish something with which, after all, I am but half satisfied. The more I write, the more difficult does it become. I perceive that I want the living fire.'

With regard to his other schemes and occupations, we can gather no very clear account. At one time he gives 'a lesson in Greek to a young man between eleven and twelve o'clock,' and spends the remainder of the day 'in study and starvation.' A lady at Weimar had a plan for obtaining him 'a good situation;' but speaking of this, Fichte said: 'It must certainly have failed, for I have not heard from her for the last two months.' Of other prospects which he had reckoned on as 'almost certain,' he thinks it at length the best course to 'be silent.' Contemplating his affairs in the month of August, he says: 'Providence either has something else in store for me, and hence will give me nothing to do here, as indeed *has* been the case; or intends by these troubles to exercise and invigorate me still farther. I have lost almost everything except my courage.' Then we hear of a distant prospect of going to Vienna, to prosecute some new literary plans, and thus being nearer to Zurich, and even visiting it on his way. Subsequently he writes: 'This week seems to be a critical time with me; every one of my prospects, even the last, has vanished.' In respect to a project for engaging him in the ministry, he expresses himself in terms of strong disgust at the 'cringing' and 'dissembling' which would be required to get him forward, and declares at last, 'I will be no preacher in Saxony.'

Thus Fichte, like Gulliver among the Lilliputians, is painfully entangled

with a complexity of mean embarrassments, and can make no progress. A strong man, in most ignoble captivity, whose every struggle towards free volition brings down upon him sharp puny arrows, vexing and irritating him at every pore. His case is by no means an uncommon one, but his spirit and deportment under it are far beyond the average manifestations of that kind. In the midst of destitution, anxiety, and neglect, he approves himself a man, nowise debasing the faculty within him, sinking neither into sycophancy, pusillanimity, nor stormful indignation against fate. The brave Fichte! how like a colossal statue he stands uprightly, with his bosom bared to the weather, majestic and unflinching, with a proud insensibility to cold and rain, and, when the sun shines out again, looking refreshed and brighter for the showers. Misery and want press hard upon him, but engender no envy in his heart; he entertains no hatred, cherishes no resentment, complains of no neglect. He braves his misfortunes as he can, soliciting neither pity nor admiration, sustaining himself by the strength of his own integrity. A right healthful self-sufficient man; patient under evil, trustful in the good; in faithful endeavouring and endurance manfully holding on his way.

But now, in the winter of 1790, his private teaching operations appear to have become a trifle more successful; whereby his outward circumstances were in some degree improved, and his mind left at greater ease and liberty for engaging in intellectual pursuits. The critical philosophy of Kant was at this time the subject of much discussion in Germany, and to it Fichte's attention was now accidentally directed. The system of deterministic necessity before alluded to was never in much harmony with his personal character; and if we are at liberty to regard certain passages of his work on the 'Destination of Man' as the expression of his own earlier state of mind, it would appear that the theory which had satisfied his understanding had long stood in opposition to his feelings. His introduction to the writings of Kant produced a complete revolution in his opinions. Many of his former doubts vanished, and the purpose of man's life, his faculties and endowments, acquired a new and nobler significance in his belief. This event was probably more important, and exercised a greater influence upon him than any other that occurred in connection with his spiritual culture. The terms in which he speaks of it sufficiently testify the high estimation in which it was regarded by himself. Writing to Johanna, he says:—

'My scheming spirit has now found rest, and I thank Providence that shortly before all my hopes were frustrated, I was placed in a position which enabled me to bear the disappointment with cheerfulness. A circumstance, which seemed dependent on mere chance, led me to give myself up to the study of the Kantian philosophy—a philosophy that restrains the imagination (which in my case was always too powerful), gives reason the dominion, and raises the soul to an elevation above earthly concerns. I have accepted a new and nobler morality; and instead of occupying myself with outward things, I am employed more exclusively with my own being. This has given me a peace such as I have never before experienced; for amid uncertain worldly prospects I have spent my happiest days. I propose to devote some years of my life to this philosophy; and all that I write, at least for some time to come, shall have reference to it. It is

difficult beyond conception, and stands greatly in need of simplification. . . . The principles indeed are hard speculations, having no direct bearing on human life, but their consequences are extremely important to an age whose morality is corrupted at the very fountain: and to set these consequences before the world in a clear light would, I believe, be doing it good service. . . . I am now thoroughly convinced that the human will is free, and that to be happy is not the purpose of our being, but rather to deserve happiness.'

Under the influence of this new inspiration, Fichte addressed himself once more to literary composition. He commenced an explanatory abridgment of Kant's 'Critical Inquiry into the Faculty of Judgment,' designed to further and facilitate the study of the new philosophy, and obviating somewhat the repulsive terminology in which it was involved. This undertaking, however, he did not complete, and the portion which he wrote was never published, owing chiefly to the pre-appearance of other similar publications, which, as he anticipated, had been rapidly vamped up to profit by the excitement which the new doctrines had occasioned. In regard to German literature in general, he believed that its golden age was at hand, discerning intimations of a promise in Goethe, Schiller, and others, which has now in good part been fulfilled. In the wondrous revolutions of the new school, the critical philosophy operated with considerable effect; and in this department, first by way of exposition, and subsequently in further development and new investigation, Fichte was destined to be distinguished.

As yet, however, he is biding his time, and has a variety of fortunes to undergo in the interim. Early in the year 1791, without any perceptible improvement in his circumstances, preparations are in progress for his marriage. The generous Johanna, bethinking her that she was 'a person with expectations,' and duly or unduly considering the applicability of these to the ordinary requirements of domestic economy, and discerning, as she believed, no difficulty which faith and a good purpose might not overcome, resolved within herself that, Fichte being willing, they two should, without further dalliance or delay, try the unspeakable possibilities of wedlock, and commit the consequences to the gracious concern and kindly interpretation of the Higher Powers. By this arrangement Fichte would be enabled to pursue his own literary projects peacefully, free from the immediate necessity of wasting his time and energies in the distressing struggle for a scanty subsistence from day to day, and with the ultimate prospect of acquiring some settled provision through his unimpeded activity in the provinces of philosophy and letters. Whatever scruples he might entertain respecting the propriety of marrying without having first secured an independence for himself, appear to have been overruled. Father Rahn had consented to the alliance; Fichte was of course eagerly inclined to it; and thus, all obstacles being seemingly removed, he awaited the event with pleasurable anticipation.

And so at length, as he believes, all his brightest dreams are to be fulfilled; his cup is brimming with delight; the draught of unutterable joy is sparkling at his lips. Alas for the stability of human expectations! Here is the hand that is to dash his anticipated pleasures to the ground. The day of his departure was already fixed, when the bankruptcy of a mercantile

house, to which Rahn had intrusted his property, threw his affairs into disorder, threatening even to reduce him to indigence. There was an end to all plans founded in reference to his prosperity. The shock brought upon the old man a lingering illness, whereby his life was for some time endangered; but by the unremitting attention and tenderness of his daughter, he was finally restored to his accustomed state of health. She, with that noble devotion which bears suffering without a murmur, and merges every element of self in the generous offices of affection, ministered to the good old father's helplessness, cheering and consoling him under the visitations of calamity, and crushing meanwhile the withered blossoms of her own hopes into the silent places of her memory.

As for Fichte, he must out again upon the bleak wilderness of life, and adjust himself to such weather as shall befall. The world, with its difficulties and obstructions, is again before him; but his is the indomitable spirit which shall rise superior to them all. For the present, he obtained a private tutorship in the house of a Polish nobleman at Warsaw; and having announced the circumstance to Johanna, bidding her at the same time to be of courage, and assuring her of his continued faithfulness, he resumed his staff, and quitted Leipzig. In the course of the journey he halted at Rammnau, to pay a visit to his parents. 'The good, honest, kind father!' said Fichte, 'his look, his tone, his reasoning, how much good they always do me! Take away all my learning, and make me such a worthy, true, and faithful man, how much should I gain by the exchange!'

On the 7th of June he arrived at Warsaw, and immediately waited upon his employer, a certain Count Von P—, a good easy man, though suffering immoderately from henpeck. Here, it seems, the gray mare is the better horse: in other words, the countess leads the orchestra; nay, as it turns out, is the sole fiddler in the establishment. Fichte finds her music unpleasantly discordant, and herself, withal, 'a vain, haughty, and whimsical woman.' The elect tutor perceives himself regarded as a mere appendage to the supreme petticoats; no respect is paid to the dignity of his profession; his pronunciation of the French language proves unsatisfactory; and his German bluntness of demeanour tells not the less to his disadvantage. What shall the proud Fichte do but resign his office without having entered upon its duties; constrain the countess, with some difficulty, to grant him a slight compensation of travel-money, sufficient for his maintenance for the two succeeding months; and with this limited supply once more journey homewards?

First, however, he resolves to visit Königsberg: there lives the much renowned Immanuel Kant, the master of the new philosophy; him would Fichte see visibly in the flesh, and reverently take counsel of. With that intent he departs from Warsaw on the 25th of June.

On his arrival at Königsberg, he, with all the ardour of a pilgrim of knowledge, straightway presents himself to Kant; finds the critical philosopher less enthusiastic than he had supposed; meets with only a formal reception; and retires deeply disappointed. Unwilling, however, to abandon his purpose, he reflects a little how he may obtain 'a more free and earnest interview;' but for some time does not perceive in what way it can be effected. At last he determines to write a 'Critique of all Revelation,' with which, as a battering-ram, he will storm the philosophic citadel, and

gain, if possible, some inspection of its wonders. The work is finished by the 18th of August, and submitted to the transcendentalist for judgment. The philosopher unbends a little, even praises the performance; but neither by it does Fichte attain his object, which, it seems, was the establishment between himself and Kant of a 'free scientific confidence.' In regard to his many philosophic doubts, he receives little in the way of answer—for solution of these Kant merely refers him to the 'Critique of Pure Reason': is it not all written *there*, so that whosoever runs, and has a touch of philosophic capacity, may read to satisfaction?

Fichte now meditates publication; but on revising his production, thinks it does not fitly express his profoundest thoughts on the subject, and therefore he undertakes to remodel it, and give it some further graces of composition. But here once more arises a grave difficulty. He, like here and there a Chancellor of Exchequer, as well as many a private person, is in a dilemma of ways and means. Counting his meagre stock of money, and distributing it prospectively over such of time with utmost attenuation it is capable of covering, he finds that it will not last him beyond a fortnight. Whereupon come no small perplexity and serious questionings as to what is to be done. He strives to obtain some employment through certain of Kant's friends to whom he had been introduced; but the friends are wanting either in influence or zeal: nothing can Fichte get to do. Alone, and in a strange country, what shall he resolve upon? It occurs to him that the great transcendentalist is doubtless a man of kindly and enlarged sympathies; for does not greatness of intellect always imply abundant generosity? He writes a manly, noble letter to Kant, highly characteristic of himself, and therein reveals to him the nakedness of his circumstances, discloses somewhat of his personal history, and, with delicate frankness, requests the loan of a small sum of money to defray the expenses of his journey to the humble roof yet open to him in Fatherland. For security and guarantee of subsequent repayment, Fichte offers all he has to give in such a case—his honour and integrity as a man. He feels the singularity of the pledge, and admits its inadmissibility as an ordinary bond. 'I know no one,' says he, 'except yourself, to whom I could offer this security without fear of being laughed at to my face.' However, he proceeds: 'It is my maxim never to ask anything from another without having first of all examined whether I myself, were the circumstances inverted, would do the same thing for some one else. In the present case I have found that, supposing I had it in my power, I would do this for any person whom I believed to be animated by the principles by which I know that I myself am now governed.' It is not without a sense of humiliation, that the proud noble heart of the man is thus reduced to mortgage its sincerity. 'I am so convinced,' he continues, 'of a certain sacrifice of honour in thus placing it in pledge, that the very necessity of giving you this assurance seems to deprive me of a part of it myself. . . . So far, however, I can rely upon my principles, that were I capable of forfeiting my word pledged to you, I should despise myself for ever afterwards, and could never again venture to cast a glance into my own soul—principles which constantly reminded me of you, and of my own dishonour, must need be cast aside altogether, in order to free me from this most painful self-reproach.' For the tone of mental independence and manly self-

respect which predominates in the letter, Fichte, solicits no pardon: he even declares that he cannot ask it, alleging that 'it is one of the distinctions of sages, that he who speaks to them speaks as a man to men.' The letter being written and transmitted, he awaits the issue with composure. This memorable day was the 2d of September 1791.

Next morning there comes from Kant an invitation to dinner. He receives his needy visitor with his usual cordiality. A magnanimous reader anticipates that now, of a surety, Fichte's pressing necessities will be suitably provided for. Alas, no! A critical philosopher is in no condition to lend money; for indeed, however celebrated, transcendentalism brings but little grist to the household mill. Philosophy is profitable for much, but for want of its long-sought, and as yet undiscoverable stone, cannot coin dollars. The intangible *idea* of dollars is all that philosophy can take note of; and as Kant said on another occasion, and in reference to quite another question, 'there is considerable difference between *thinking* we possess a hundred dollars, and really *possessing* them!' Hegel's declaration, that 'philosophy does not concern itself with such things as a hundred dollars,' though no sufficient answer to Kant's remark, is nevertheless, in an *untranscendental* sense, very obviously true. Kant, as we said, cannot lend money, at least he is in no possibility of doing so for the next fortnight—then *perhaps* he may. Meanwhile Fichte shall be welcomed to occasional pot-luck.

In his own hired attic, however, things are getting daily more cheerless; the image of grim Scarcity sits before him in his lonely room all day long; the autumn evenings are growing chill, and on his hearth are only the ashes of extinguished fires. The spirit of despondency overshadows him, and his brave heart is sick from hope so long deferred. Visions of the parental fireside, and its cheerful evening faces, far away in natiaveland, visit him at intervals, making him to feel, by contrast, more keenly the hardships of his lot. Neither is the image of his fair Johanna Rahn ever absent from him long; but as a serene angel of consolation shines beckoning in the distance, and does at least partially illuminate his melancholy thoughts. Nevertheless the present time is pressing; Fichte has fallen into painful extremity. But why not sell the manuscript of that 'Critique of all Revelation?' Kant says it is admirably written, and does not need to be reconstructed. Truly, nothing shall hinder, provided one can get a publisher. Kant recommends him to offer it to Hartung, a Königsberg bookseller of some distinction; but unhappily the worthy Hartung is from home. With him, therefore, at present, there is no dealing. Fichte tries to dispose of the work elsewhere, but utterly without success; no publisher to whom he applies is disposed to undertake any article of that description. On the 12th of September Fichte writes down this passage in his journal:—'I wanted to work to-day, but could do nothing. How will this end? What will become of me a week hence? Then all my money will be gone.'

The darkness is gathering thick around Fichte's prospects—no star is visible in the whole heaven of his observation. Fichte, however, is not to die of destitution. Fortune has tried him hardly; and now, if no star, she reveals at least a comfortable show of candlelight. An invitation reaches him, through court-preacher Schulz, to repair into the neighbourhood of

Dantzic; there, in the family of the Count of Krokow, a tutorship awaits him. Tutorships are Fichte's abomination, and his views were now directed to a life of literary exertion; nevertheless, as necessity consults no man's convenience, he accepts the proposal. Whence he obtained money for the journey does not appear; but at anyrate the journey is performed. Fichte meets with the most friendly reception; and entering on his new employment, experiences the kindest attentions therein. *This* countess proves herself from the first a woman of 'amiable character and excellent abilities,' and she renders Fichte's residence in her family 'not only happy, but interesting and instructive.' The kindly Countess Krokow! blessings on her fair, noble head, though, alas! that is long since laid at rest!

This fortunate appointment was the beginning of many years of uninterrupted prosperity. Very shortly, through the agency of his friends at Königsberg, Fichte is enabled to make arrangements with Hartung for publishing the 'Critique of all Revelation.' The terms are settled, and the process of type-setting is going on. But who is this solemn incarnation of pomposity, stopping the printing-presses at Halle, and vociferously announcing the discovery of a cloven foot? This is the dean of the Theological Faculty, who refuses his sanction to the publication, on account of certain principles contained in the book, which he, in his straitlacedness, conceives to be unorthodox. Fichte has to urge that his book is not theological, but philosophical, and therefore does not properly come under the cognisance of the Theological Faculty; but this plea is held to be irrelevant. Friends advise him to withdraw the obnoxious passages; but Fichte is inflexible: having written nothing which he does not solemnly believe, and can give some show of reason for, he is determined that the book shall be printed entire, or printed not at all. Kant is consulted on the subject, as a man whose judgment is of the highest authority in such matters; and Kant confirms the soundness of the principles in dispute. Abiding by his position, Fichte has to wait awhile and see what may become of it. As it chances, he has not to wait long; the difficulty is happily got rid of by a change in the censorship. The new dean, not partaking in the scruples of his predecessor, gave his consent to the publication, and the work accordingly appeared in the spring of 1792.

A new era now opens upon Fichte. All journals devoted to the critical philosophy are loud in their praises of his work. Would a curious reading public know *wherefore*, let them take note of this one circumstance: Certain editors of ability have got an impression that this is a new book by Kant, which he, for reasons of his own, chooses to publish anonymously. What, therefore, is so becoming for all able editors and indiscriminating sucklings of the Critical Philosophy, as to chant a stave, according to ability, in honour of the great master? The book was not of a nature to force itself immediately into notice, and it probably owes not a little of its first success to this mistake respecting its paternity. Kant, however, publicly disclaims the authorship, and discloses the name of the writer. Fichte, as it turns out, can bear to stand on his own basis; and the sounder heads among his countrymen soon fail not to welcome him as one of the profoundest of German thinkers.

Any analysis or adequate description of this remarkable book cannot be

attempted here. Such an account of it as we could render by a brief allusion to its principles would almost certainly create a false impression of its purpose. Whoever would know it as Fichte designed it to be known, let him bring with him a clear head, a mind open to conviction, and a resolution strong enough to abide by the truth when he has learned it. Let us take, however, one sentence from the preface, and mark in what spirit Fichte approaches the inquiry: 'To truth,' says he, 'I solemnly devote myself, at my first entrance into public life. Without respect of party or of reputation, I shall always *acknowledge* that to be truth which I recognise as such, come whence it may; and never acknowledge that which I do not believe. It may be of little importance to the world to receive this assurance, but it is of importance to me to call upon it to bear witness to this my solemn vow.' A noble vow, nobly fulfilled, and one which the humblest of the sons of Adam might enjoin upon himself, and abide by to advantage.

Glancing back a little, we now perceive with satisfaction that the prospective father-in-law's affairs have got somewhat righted. Fichte is already a rising man, so the time has come when he may safely wed. Accordingly, in March 1793, he writes to the fair Johanna that he shall be with her in June, or at latest in July, with a view to that agreeable consummation. He contemplates the event with deepest pleasure, but also with much solemnity of feeling. An overflowing thankfulness fills his heart; the magnitude of the happiness which awaits him seems too great for his unworthiness. The strong, stern soul of the thinker, with its rock-like stability and earnestness, touched by affection's gentle rod, gushes out in streams of tenderness. Then there are kindly leave-takings, half-sorrowful, with his worthy friends at Dantzic, 'who are unwilling to let him go;' plans and preparations for the future; above all, a visit to his well-beloved parents, and his 'seven sisters,' who have heard somewhat of his honours in authorship, and now give him their blessing and approval of the course on which he is about to enter. Fichte, doubtless, tells them something of his wanderings and endurances, and how a benignant Providence had helped him in his extremity; nor, amidst his many wondrous relations, can that grand interview with Kant fail to be spoken of. There, in the old Lusatian home, they are gathered, speaking and listening by turns, happy as this world can make them; and as they speak and listen, the proud old father's eyes are glistening with tears. The patient mother, too, feels well rewarded for all her care and many anxieties for this noble son; and the assiduous sisters are bountiful of all kindly ministrations. Far into the night they sit, parting at length with sad, yet happy faces, and silent prayers for mutual welfare.

Early in the month of June he takes his leave of them, and journeys to the bride-home in the land of mountains. On the 16th he is drawing nigh to the very spot. Pleasantly glance the rays of the summer sun about the old walls of Zurich; there, in her father's house, is the long-beloved, waiting with expectation to become his wife. The echo of his footsteps through the rather silent summer streets is unheard by him, for before him is the bride-father's house; and his entrance there is one of pleasant greetings.

But what means this new vexation coming upon us unexpectedly, and

positively putting off the marriage? It arises simply out of certain 'laws of the state affecting foreigners,' which happily will only occasion a few months' delay. On the 22d of October the marriage takes place, and Fichte is away with the bride to enjoy a short 'tour in Switzerland.' Returning home, he takes up his residence in the good father-in-law's house: here in friendly Zurich, with the distant mountains frowning down on him with a grand benignity, he will rest for a time, and gain a livelihood by his pen. For several months he enjoyed 'a life of undisturbed repose,' sweetened by the society of her whose love had been his stay in times of adversity, and now gave a holier living purpose to the prosperous hour.

In the peaceful Swiss canton all is yet happiness and security; but the rest of Europe is shaken with a new-born terror; and tidings are abroad of that grand convulsion called the French Revolution. Old Feudal Europe, with its obsolete usages, and establishments of ancient power grown intolerable, has fallen into distraction and decadence. Folly and oppression have ruled it long, but now has come the dawn of a world's deliverance. France has spoken forth a word of terrific prophecy, which the assembled nations have quailed to hear, though all have long been struggling to utter it; everywhere is promise and expectancy; the new-born giant of democracy is chanting loud his daring hymns to freedom; the genius of humanity, so long discomfited and trodden down, has mounted a pinnacle of unheard-of glory, whence, as from a throne, she shall dispense the bounties of a golden age. Alas! these prospects are all delusive, and the struggle proves no deliverance, but only a bewildered agony and madness—a convulsive irregular tumult of unconsecrated indignation; like the mournful catastrophe of a blind Samson's strength, when he threw down the pavilion of the Philistines, and buried himself and his oppressors in the ruins.

Yet, doubt it not, the French Revolution had a *meaning* in it of great significance, which is going on even now unto fulfilment. Read it truly, it is, as one has said, a proclamation, as amidst 'infernal splendours,' of the everlasting majesty of Justice, whose divine right of government had been foully overthrown. Whosoever will look may perceive that the old feudal incarnation of humanity is abolished and dead, and men are now burying its remains: the new development towards which we are progressing is the dominion and supremacy of Industry, which, however, is not likely to be founded without difficulty. Nevertheless, courage to brave hearts! What is dead need not be lamented; in the conflict of principles and institutions the new spirit proves ever triumphant; for humanity is as a phoenix, from the ashes of whose despair springs a nobler birth of hope.

Fichte, looking on at this revolutionary procedure from his Swiss retirement, conceived that there was much misunderstanding respecting it, and accordingly wrote and published his 'Contributions to the Correction of Public Opinion' thereupon. Instead of execrating or eulogising the Revolution, Fichte adopts a far preferable course, and endeavours to understand it, which, indeed, was strictly his business as a philosopher. And this is the leading principle of his work:—'That there is, and can be, no absolutely unchangeable political constitution, because none absolutely perfect can be realised; the relatively best constitution must therefore carry within itself the principle of change and improvement. And if it be asked from

whom this improvement should proceed, it is replied that all parties to the political contract ought equally to possess this right. And by this political contract is to be understood, not any actual and recorded agreement—for both the old and the new opponents of this view think they can destroy it at once by the easy remark, that we have no historical proof of the existence of such a contract—but the abstract idea of a state, which, as the peculiar foundation of all rights, should lie at the bottom of every political fabric.' This book subjected Fichte to the charge of being a democrat, which, however, in the popular English sense of the term, he really never was, as from his work on the 'Principles of Natural Law' may sufficiently be seen.

These political speculations, however, were not the most important upon which Fichte was engaged during the period of his residence in Zurich. We are told of 'several powerful and searching criticisms' which appeared in a leading philosophical journal, and in which discerning eyes had discovered the hand that wrote the 'Critique of Revelation.' Furthermore, at the instigation of venerable Parson Lavater, he prepared a short course of lectures, a sort of critical philosophy made easy, by means whereof, since the fame of Kant's achievement had reached Switzerland, the worthy pastor proposed to indoctrinate his friends, that they, as well as others, might be enabled to discuss the same whenever thrown into philosophical society. It need not surprise us, that 'this excellent man retained the warmest feelings of friendship towards the philosopher,' inasmuch as Fichte was right worthy of anybody's friendship, be he who he might. For the rest, it seems Fichte lived in close retirement; the manners of the Zurich burghers not pleasing him, he 'seldom went out into society.' His own wife, his father-in-law, the unexceptionable Lavater, and certain indefinite people, described as 'a few others,' made up the circle of his acquaintance. He had considerable correspondence, however, with several distinguished persons, amongst whom prominently appears Reinhold, then professor of philosophy at Jena, and recognised leading Kantist of the day—known also for certain fanciful modifications of the original doctrine, and by him called 'philosophy without nickname.'

But apart from these secondary occupations, Fichte was to some extent engaged in planning the philosophical system upon which his reputation mainly rests. Further meditation has convinced him that even the sage of Königsberg is not infallible; and that indeed much remains to be done before the cycle of philosophy is complete. In this very month of October 1793, whether before marriage or afterwards the present writer knoweth not, he writes to a friend thus significantly:—My conviction is that Kant has only *indicated* the truth, but neither unfolded nor proved it.' Subsequently he announces: 'I have discovered a new principle, from which all philosophy can be easily deduced;' and he even has the audacity to prophesy that 'in a couple of years we shall have a system distinguished by all the clearness of geometrical evidence.' Fichte of course is to produce it, and is even now devoting all the energies of his intellect to that end. His intellect is of the subtlest, and he works in his vocation with the zealous energy of one who loves the truth with undivided earnestness; but alas for the promised philosophy with the clearness of geometric evidence—that, we

believe, is still waited for, and perhaps need scarcely be expected before doomsday—rather late in the evening!

However, Fichte for the present believes otherwise, and, so believing, will intrepidly pursue his speculations, and see what may become of them. He is invited to undertake the education of the Prince of Mecklenburg-Strelitz, a tutorship with good appointments and prospects of court patronage, all of which Fichte firmly and modestly declines. 'I desire nothing,' says he, 'but leisure to execute my plan—then fortune may do with me what it will.' Here is a man, evidently, who will not compromise philosophy for pudding. Nevertheless his studies are interrupted. Without solicitation of his, he is appointed Professor Supernumerarius of Philosophy at the university of Jena, in room of friend Reinhold, who, it seems, has removed to Kiel, there to edify a new set of students by that fanciful 'philosophy without nickname.' Court tutorships may be declined without compunction, but not a professorship of philosophy; Fichte accordingly accepts it, on condition that he shall be allowed to devote the greater portion of the first year to study.

The university of Jena was at this time the most distinguished university in Germany. Its contiguity to the court at Weimar connected it with the highest literary names of the age. The Grand Duke Charles Augustus, having an eye and reverence for talent, had adorned his little Saxon court by the presence of such men as Wieland, Herder, Goethe, and Schiller, and, as one might reasonably suppose, found them very tolerable company. Indeed the intellectual brilliancy of the Weimar circle seems to have had in modern times no parallel elsewhere; so that it might stand in quite envious comparison with the courts of many a larger state, some of which can boast of nothing higher than an occasional 'apotheosis of a Beau Brummel.' To this brilliant and busy scene was Fichte translated from his Swiss retirement—to the society of the greatest living men—to the office of instructor to a thronging crowd of students 'from all surrounding nations.'

Mark, however, the supremacy of genius, and how a man possessed of that does not fail to acquit himself right nobly. His already considerable reputation, and the bold originality of his philosophic system, as displayed in the published programme of his lectures, had raised the public expectation to the utmost; so that his position was one of no little difficulty, inasmuch as he might possibly prove unequal to what had been expected of him. Arrived at Jena on the 18th of May 1794, he was received with great kindness by his colleagues at the university. On the 23d he delivered his first lecture—to an audience so numerous, that the largest hall in Jena, although crowded to the roof, proved insufficient to contain all who had assembled. The impression which he made even exceeded all prior expectation. His singular and commanding address, his fervid, impetuous eloquence, the profoundness and rich profusion of his thoughts, poured forth in the most convincing sequence, and, fashioned with a wondrous precision, astonished and delighted his hearers. The rugged, earnest force of his uncommon character, strengthened by long silence, and perfected by inward struggle, burst forth with the first occasion in a grandeur of originality not to be otherwise attained; resembling that volcanic vehemence which, from the central depths of the earth, darts upwards through barriers of perennial ice, and flames forth aloft an object of asto-

nishment. Fichte's first appearance in his new capacity was quite triumphant: we are told that 'he left the hall the most popular professor of the greatest university of Germany.'

Of that astonishing popularity we do not account much; happily for himself, Fichte also knew what estimate to put upon it. Not for popularity, or breath of vain applause did he live; but that out of the unshaped possibilities of his life, he might build up a pillar of completed duty. What else, indeed, does every true man live for, if not for this? What else, except this, is all men's mission and prescribed destiny in this fluctuating life of time!

Fichte's residence at Jena was nowise distinguished for its peacefulness. German students are proverbially obstreperous. Then, as now, they were united in certain irregular orders or unions, known by the name of *Landmannschaften*, their proceedings being marked by great turbulence and licence. In Fichte's time, riots of the most violent description were of common occurrence; houses were broken into and robbed, either by way of a pleasant excitement, or for the purpose of obtaining means of sensual indulgence. Legal authority was impotent to restrain these excesses; so bold indeed had the unionists become, that on one occasion, when the house of a professor had been ransacked, five hundred students openly demanded from the duke an amnesty for the offence. It seems to have been considered a highly commendable and interesting achievement to plunder a professor. The academical authorities had made frequent efforts to suppress these societies; but on such occasions the students uniformly broke out into more frightful irregularities. For, indeed, is not 'Liberty for ever' the undeniable right of men and students? Whosoever, therefore, would restrain established *Burschen* privileges, immemorial rights of 'academical freedom,' let him look out for broken windows, and deem himself happy if he can hide his wine!

But now, cannot an indomitable Fichte, with his manifest strength of character, do something in the way of reforming this unpleasant state of things? Most willingly would he do it; but the question is, how can it be done? Try logic. German students have a certain share of understanding, and perhaps they possess some kind of succedaneum for conscience—who knows? On this flattering hypothesis, Fichte commences a course of public lectures on 'Academical Morality;' in which proceeding he appears to prosper almost beyond his hopes. These lectures, and his own personal influence among the students, are attended with the happiest effects. The three orders then existing at Jena are smitten with penitence; and express their willingness to dissolve their union, on condition that the past should be forgotten. To Fichte they delivered over the books and papers of their society, for the purpose of being destroyed as soon as he can make their peace with the court at Weimar, and receive commission to administer to them the 'oath of renunciation,' which, however, they will receive from no one but himself. Fichte seems to have accomplished, by the sole force of his individual character, what the university authorities, armed with the rigour of the law and implements of punishment, had been unable to effect.

And yet it would seem that every reformation can be only partial. A very Luther, with his strong 'battle-voice,' and defiant, lifelong warfare against principalities and powers, cannot make a whole Europe Protestant.

So too it happens with the reformer Fichte. That expected commission from Weimar is somewhat tardy in arriving. It is even whispered that the university authorities, jealous of the success of an individual professor, who had done by himself what they could not do in their collective capacity, are enviously raising obstacles. Whereupon arise suspicions, stupid rumours of all sorts, and dissatisfaction on account of the delay; and, by way of practical consequence, one of the three orders withdraws from the engagement, turning with great virulence against Fichte, as a man suspected of deceiving them.

The success, as we said, is only partial. Still, two orders gained over is some encouragement. Were it not well, therefore, to put on an extra pressure of logic, with a view to reduce likewise the rebellious third? Fichte accordingly determines to deliver, during the winter session of 1794, another course of lectures, 'calculated to arouse and sustain a spirit of honour and morality among the students.' To accomplish his purpose thoroughly, it was necessary that these lectures should take place at a time not devoted to any other course, so that he might assemble an audience from among all the several classes. But every hour from eight o'clock in the morning till seven in the evening, of every six days in the week, was already occupied by other lectures. No way seemed open to him but to deliver these moral discourses on the Sunday. Before adopting this plan, however, he made diligent inquiry whether any law, either of the state or the university, forbade such a proceeding. Discovering no such prohibition, he examined into the practice of other universities, and found many precedents to justify Sunday lectures. Finally, he asked the opinion of some of the oldest professors, none of whom saw any objection to his proposal, provided he did not encroach upon the time set apart for divine service. 'If plays are permitted on Sundays,' said Schütz, 'why not moral lectures?' Fichte, therefore, fixed upon nine in the morning as the hour, and commenced his course under favourable prospects. A large concourse of students from all the different classes attended, together with several of the professors, who willingly acknowledged that they derived great benefit from the discourses.

Fichte believes himself to be in the way of duty. Nevertheless 'the best-laid schemes of mice and men,' not to say professors, 'gang aft agley;' and Fichte finds that the worthiest intentions, and conduct the most prudent, are no protection against calumny. A political print, of the anonymous slanderous description, 'distinguished by crawling sycophancy towards power,' directs its wondrous sagacity to the consideration of this phenomenon, and traces a very intimate connection between the Sunday lectures and the French Revolution! If a discerning public will believe this anonymous slanderous publication, here is a 'formal attempt to overturn the established religious services of Christianity, and to erect the worship of Reason in their stead!' A stupid, *undiscerning* public to some extent believes it, and the Consistory of Jena conceive it to be their duty to forward a complaint on the subject to the High Consistory at Weimar. Finally, an assembly lodges an accusation before the duke and privy council against Professor Fichte, for 'a deliberate attempt to overthrow the public religious services of the country.' Inquiry is thereupon directed to be made; meantime let Professor Fichte suspend his lectures.

Fichte suspends, but will in the interim take occasion to defend himself. The best way of doing so is to give a 'simple narrative of the real facts,' and to make government acquainted with his projects for the moral improvement of the students. This done, the charge is effectually demolished. The duke forthwith gives judgment, 'dated 25th January 1795,' whereby Fichte 'is freely acquitted of the utterly-groundless suspicion which had been attached to him;' his wisdom and prudence are mentioned with approbation; and he receives assurances of the 'continued good opinion' of the prince. The Sunday lectures, accordingly, are resumed, avoiding, as heretofore, the hours of divine service.

Meanwhile, that outstanding third union, or Belial-fraternity, proves utterly invincible by logic, and its outrageous proceedings are beginning to render Fichte's residence at Jena not only uncomfortable, but even dangerous. The good wife Johanna has been several times insulted on the public streets; his own person is not always safe; and his property has been subjected to repeated outrages. Obviously the town of Jena is in great want of new police. In lack of such desirable force, Fichte is constrained to apply to the senate of the university for protection. The senate declares it can do nothing more than authorise self-defence, in case of necessity; except remind him that he has brought his difficulties upon himself, by bringing the conduct of the orders under the notice of the state, without the senatorial sanction. If more protection than the academy can afford him be desirable, Fichte is at liberty to apply to his friends at court. Such is the position of affairs till towards the close of the winter session. Then we have a crisis. In the middle of the night (date unknown) a party of the Belial-fraternity made an attack upon Fichte's house, perpetrated considerable damage, and caused much alarm, the worthy father-in-law, who it seems was now living with our professor, narrowly escaping with his life. It appears high time for the household to be moving. Accordingly Fichte applied to the duke for permission to leave Jena, which being granted, he took up his residence at Osmanstadt, a village about two miles from Weimar.

About this time, if we mistake not, Fichte completed his speculations which were begun at Zurich, and published them under the title of 'Wissenschaftslehre,' which, being interpreted into our vernacular, signifies 'Doctrine of Science.' This is the scientific development of his philosophical system—the systematic co-ordination of those 'materials for a science,' which he conceived Kant to have discovered but not developed. In this he endeavoured to construct *à priori* the whole system of human knowledge upon the original basis of consciousness; as from the fundamental principles here evolved, he designed to construct a complete system of morals.

It has been said that the peculiarities of Fichte's philosophy are so intimately bound up with the personal character of its author, that both lose something of their completeness when considered apart from the other. So far, at least, as ideal and actual may approximate, the one is the idea whereof the other is the visible realisation. The two mutually illustrate each other. Nevertheless, to attempt any sufficient exposition of the system in this place would be futile. It were easy to bewilder uninitiated readers with the transcendental phraseology—but what profit? The

thing solely essential in the case were to make it understood. But Fichte is not to be understood without much sedulous and patient study. His is nowise what the Germans call a 'parlour-fire philosophy'; but a rugged obstinate element, which one must contend with lustily before it will yield us any result. Whoever has courage and opportunity for such an enterprise will probably find himself ultimately rewarded for the pains bestowed upon it; whatever may be his conclusions as to the value or truth of the opinions he will here encounter, a due consideration of them will of itself be an admirable discipline of his understanding.

Here, however, it is curious to observe how any new system, or important modification of an old one, is uniformly met with outcry and distrust. Let a man, or any number of men, be settled down into any given habitude, either of thought or of mere material arrangement, and how difficult and unpleasant it is to move out of it. It has often occurred to us that our numerous railways must have many times proved marvellous annoyances in this respect. Fancy a retired burgher, who has built for himself a quiet snugger, a little way out of town, all precisely accordant with his own notions of a private residence, thinking to dwell there unmolested for the rest of his lifetime. Lo, suddenly, some cosy afternoon, when he is perhaps congratulating himself on the quietude of his retreat, he receives the astounding intimation, that it is proposed to carry the Donner and Blitz Railway slap through his drawing-room! Here is a touch of unexpected electricity for him! What does he do but straightway begin to anathematise the project, and predict all manner of evil concerning it? Just so is it with that whole class of thinkers who have complacently settled all that appertains to man and the universe according to some quiet life-theory of their own. That there should be anything in heaven or earth not 'dreamt of in *their* philosophy' is what they cannot be prevailed upon to admit. Many at this period were the self-satisfied retired thinkers, inhabiting suburban boxes in the vicinity of the capital city of Transcendentalism. How very uncomfortable now to be dispossessed, with no better prospect for some time to come than that of furnished lodgings! Really it is difficult for any retired individual, man of business or philosopher, to reconcile himself to so unpleasant a predicament. Accordingly, one need not wonder greatly at the many attacks which the Wissenschaftslehre sustained from some of the philosophical journals of the day. To these for some time Fichte paid little or no regard; but becoming at length more frequent and importunate, he was in a manner constrained to reply to them. He did this in a very decided fashion. Take, for instance, a glance at the measure dealt out to a certain Herr Schmidt, a very stolid and troublesome antagonist. 'My philosophy,' says Fichte, 'is nothing to Herr Schmidt from incapacity; his is nothing to me from insight. From this time forth I look upon all that Herr Schmidt may say, either directly or indirectly about my philosophy, as something which, so far as I am concerned, has no meaning, and upon Herr Schmidt himself as a philosopher who, in relation to me, is non-existent.' Here at any rate is no lack of emphasis, whatever one may think about courtesy. A perfectly fair mind might regret the tone of contemptuousness and asperity here and elsewhere observable in Fichte's treatment of his opponents; nevertheless, in judging of it, it were well to consider the specific circumstances under

which it was adopted. He himself was never the assailant, but desired if possible to avoid controversy, and entered into it only when he seemed impelled by persecution and abuse. Besides, he always professed himself to contend, not for distinction, but for truth. 'With him to whom truth is not above all other things'—said he, 'above his own petty personality—the Wissenschaftslehre can have nothing to do.' And again: 'It fills me with scorn which I cannot describe, when I look on the present want of any truthfulness of vision, on the deep darkness, entanglement, and perversion, which now prevail.' He admits that he had not handled Herr Schmidt very tenderly; but says that every just person, knowing many things that were not before the public, would give him credit for the 'mildness of an angel.' Fichte complains of nothing more distinctly than that his system was misapprehended; that his opponents would not take the trouble to understand it, or admit their inability if they could not: above all, that they would not refrain from pronouncing *against* it, even when they *knew* that it was not understood by them. Nothing more natural than that he should consider such conduct foolish and unreasonable, and treat it accordingly. 'It is surely to be expected,' said he, 'from every scholar—not that he should understand everything—but that he should at least know whether he does understand it or not; and of every honest man, that he should not pass judgment on anything before he is conscious of understanding it.'

While, however, the Wissenschaftslehre was indifferently received, and indifferently comprehended by many of his philosophic brethren, it was not without success in other quarters. Men of genius, not so exclusively devoted to metaphysical speculation, accepted it with much avidity and welcome, as considerably the most serviceable philosophy they had met with. Foremost amongst these, as foremost among all German men, was the poet Goethe. Knowing Fichte well, and entertaining a high opinion of his character and ability, he requested that the work might be sent to him, sheet by sheet, as it went through the press; and he afterwards acknowledged that the study of it had been of essential service to his culture.

The disturbances which had driven Fichte out of residence at Jena gradually subsiding, his academical life went on for some time unmolested, and he appears to have devoted himself assiduously to literary exertion. His contributions to the 'Philosophical Journal,' of which he became joint-editor with his friend Niethammer, in 1795, form an important part of his works, and are directed chiefly to the further scientific development of his system. In 1796 appeared his 'Doctrine of Law,' and in 1798 his 'Doctrine of Morals,' wherein the fundamental principles of the Wissenschaftslehre are applied to practical departments of knowledge.

Meanwhile two events had transpired in connection with his domestic relations: the death of the good father-in-law in September 1795, and subsequently the birth of a son, who, we believe, is at this present writing a professor of philosophy in the university of Tübingen. Fichte's household life throughout appears to have been distinguished by peaceful simplicity and general uniformity of happiness, varied only by such solicitudes and trivial infelicities as are understood to chequer the most favourable matrimonial alliances.

Now, however, diligent literary exertion, domestic comfort, academical

reputation, and even the future prospects of his life, are about to be blasted by an unexpected blow. Fichte, who has already suffered much, must adjust himself to a greater calamity than has hitherto befallen him. He may nerve his strong heart, and shield him well in his integrity, for the powers of malice and stupidity are coming down upon him from the high places, to lay waste the little garden of his peace! 'This man, whose life has been a continual adoration of the Infinite, to whom the immeasurable universe has been but as a vast and solemn temple, wherein his earnest spirit has mused and worshipped; whose heroic sentiments and lofty contemplations tend pre-eminently to inculcate and exalt a faith in the God-like, and to make it manifest in the consciences and visible activities of men—this man of steadfast virtue, and of humble, trustful piety, is now to stand publicly accused of atheism!

This is a charge which has been oftentimes preferred against philosophers, whose speculations, from their novelty and the imperfections of language, have on their first announcement been generally misunderstood. The popular mind in all ages has been apt to misconstrue the discoveries and further developments of truth, which new and greater intellects occasionally reveal, into a profane interference with established opinions. It is ever the lot of the man who outstrips his contemporaries in spiritual discernment, to be first misinterpreted, and then denounced. The catalogue of noble names who have thus suffered would be comparatively endless. Accusations of atheism and infidelity swell everywhere the records of history and of literature; a reader of any compass of comprehension comes gradually to regard them as only sorrowful instances of that mental and moral perversion which inevitably results from imperfect cultivation. For, really, atheism as a faith is manifestly incredible. Who ever knew an atheist from conviction—a man who, using his senses and understanding, yet believed there was no God? It is only the fool that hath said so in his heart, and wished it might be true.

The accusation against Fichte was founded upon an article which he published in the 'Philosophical Journal' for 1798, 'On the Grounds of our Faith in a Divine Government of the World.' In this he examines the true foundations of our belief in regard to a moral government of the universe; not, indeed, for the purpose of establishing faith by demonstration, but to shew the fundamental elements of a faith already subsistent in man, and indestructibly rooted in his nature. The absurd charge of atheism must have originated from an utter misapprehension of the writer's purpose; which, so far from controverting the existence and superintendency of a moral ruler, was solely directed to inculcate clearer and more comprehensive conceptions respecting his attributes and supremacy. Into further particulars of the calumny we have here no space to enter, and can only mention that the matter was brought before the court at Weimar for investigation, and that the proceedings terminated with a decision sufficiently exonerating Fichte from the charge preferred against him, though a strong disapprobation was expressed in regard to the 'imprudence' whereof he was considered chargeable in giving publicity to his doctrines in terms offensive to the popular understanding. Dissatisfied with the qualified character of the decision, Fichte resigned his professorship at the university, and indignantly quitted Jena.

In the summer of 1799 we find him in Berlin, writing his book on the 'Destiny of Man.' In the progress of this work he took a deeper glance into religion than he had ever done before. In allusion to it he says: 'In me the emotions of the heart proceed only from perfect intellectual clearness; it cannot be but that the clearness I have now attained on this subject shall also take possession of my heart. To this disposition is to be ascribed in a great measure my steadfast cheerfulness, and the mildness with which I look upon the injustice of my opponents. I do not believe that without this dispute, and its evil consequences, I should ever have come to this clear insight and this disposition of heart which I now enjoy; and so the violence we have experienced has had a result which neither you nor I can reasonably regret.' So writes he to the good frau Johanna, still left behind at Jena. Fichte seems to have understood what Shakespeare meant when he said: 'There is a soul of goodness in things evil, would men observingly distil it out.'

His economical circumstances, meanwhile, were none of the brightest. Towards the end of the year, however, he succeeded in removing his family to Berlin, in which place he thenceforth continued to reside. Here, surrounded by a 'small circle of friends worthy of his attachment and esteem,' he appears to have lived for some time privately and happily, 'cultivating literature upon a little oatmeal'—like the illustrious projectors of the 'Edinburgh Review.' Uninterrupted by public duties, he applied himself diligently to the perfecting of his philosophy. At the close of 1799 he published his 'Destiny of Man;' and during the two following years he was occupied with certain preliminary treatises, designed to prepare the public mind for the complete reception of his doctrines, by shewing their application to subjects of general interest. These introductory writings he intended to follow up with a more strict and complete exposition of his scientific method, designed solely for the philosophic reader. This purpose, however, was for a time postponed, owing partly, it would seem, to the doubts which he entertained respecting the best mode of communicating with the public, and partly, it is said, to his personal dissatisfaction with the reception which his works had hitherto received. For one reason or another, he refrained from publishing anything for the space of six years, with the exception of one or two minor works of a controversial character which appeared in 1801.

Fichte, nevertheless, could not remain altogether inactive, nor restrict himself wholly to a contemplative life. Shut out, as he conceived, from the reading public, he sought to collect around him a listening one, to whom he might verbally impart such message as he had. This, indeed, is said to have always been his favourite mode of communication; as in the lecture-room he found a freer scope for his peculiar powers than the form of a literary work would admit of. A circle of pupils was gradually gathered about him in Berlin, to whom from time to time he delivered private lectures. Many distinguished scholars and statesmen were also among his auditory, it being soon generally understood that Fichte was a man worth going to hear. There, accordingly, for awhile, in his own hired lecture-room, he addressed his audiences on some of the toughest subjects that could engage the understanding.

In 1804, through the influence of certain ministerial friends, he was

appointed professor of philosophy at the university of Erlangen, with privilege to return to Berlin during winter to continue his lectures in that city; and in this new appointment he achieved as brilliant a success as he had formerly gained at Jena. Here he addressed, to all the students of the university, his memorable lectures on the 'Nature of the Scholar.' These he subsequently published as an amended edition of a former course on the same subject which he had given to the public, twelve years before, whilst resident at Jena. In these singular disquisitions the characteristics and duties of the scholar are deduced with a rigorous scientific precision, and presented, as Carlyle has said, 'in all their sacredness and grandeur, with an austere brevity more impressive than any rhetoric.'

Fichte's outward history is now for some time undistinguished by anything of general interest: we accordingly pass over a number of minor details, to contemplate his attitude and behaviour under new circumstances of trouble and privation. In 1806, the dominion of Napoleon had become extended over nearly the whole of Germany: and Prussia, which alone maintained its independence, was surrounded on all sides by his armies or auxiliaries. While preparations were in progress to oppose the advances of the enemy, Fichte made an application to the king to be permitted to accompany the troops in the capacity of patriotic orator—thinking he might, by force of eloquence, inspire his fighting countrymen with some additional courage and a resolute invincibility of resistance. The proposal was honourably received, but declined as incompatible with military arrangements. The impending struggle, moreover, was very briefly settled: the invader marching successfully from Auerstadt and Jena, and so onward to a triumphant occupation of Berlin. This event rendered it necessary for all who had identified themselves with the interests of their country to seek refuge in flight or concealment. Fichte resolved not to tender submission to the conqueror, and seeing no especial beauty in remaining to be shot as a rebellious partisan of a vanquished cause, timorously betook himself to cover. Leaving his wife to take charge of his household, he with his friend Hufeland fled beyond the Oder. Awaiting the issue of the war, the two took up their residence at Königsberg, where Fichte was so far fortunate as to get appointed provisional professor of philosophy during his stay. In Königsberg University he accordingly lectures throughout the winter with his usual ability and zeal.

As was natural in the case, the good wife* Johanna many times entreats him to return home to Berlin; the French soldiery proving nowise troublesome to quietly-disposed people, but being, on the whole, and especially the officers, rather amiable fellows. Fichte, notwithstanding, cannot be prevailed on to return, but obstinately declares it to be his duty to submit to every privation and discomfort rather than give an indirect sanction to the presence of the enemy by sitting down quietly under their dominion, even could he do so with perfect safety to himself. 'Such a returning,' said he, 'would be directly contradictory of the declarations made in my addresses to the king, out of which my present circumstances have resulted. And if no other keep me to my word, it is just so much the more imperative on me to hold myself to it. It is precisely when other scholars of note in our country are wavering that he who has been hitherto true should stand firmer in his uprightness.'

This was bravely spoken. But now, on the 8th of February 1807, the battle of Eylau rendered Königsberg no longer safe as a residence: were it not, therefore, well to quit quarters there, and repair to others somewhat more remote? Fichte thinks so, and accordingly removes to Copenhagen. Thither he arrives on the 9th of July, 'having been detained for several weeks at Memel and at sea by unfavourable winds.' It is ordained, however, that he shall not long remain there; for peace between Fatherland and the enemy is shortly afterwards concluded, Berlin evacuated, the gallantries of French soldiers suddenly cut short, and towards the end of August the philosopher is again stationed under his hired roof-tree, with his family, in the Prussian capital.

With the establishment of peace, the Prussian government sought to repair the loss of political significance by fostering among its citizens the desire of intellectual distinction and a spirit of freer speculation. It seemed needful to 'rebuild the temple of German independence' on altogether new foundations. The liberty which had been swept away must be succeeded by a fresh manifestation proceeding from a deeper principle, and nurtured by a nobler means of culture. One of the first modes which suggested itself for the attainment of this end was the establishment at Berlin of 'a new school of higher education, free from the imperfections of the old universities, from whence, as from the spiritual heart of the community, a current of life and energy might be poured through all its members.' Fichte was chosen as the man best fitted for the work, and unlimited power was given him to frame for the proposed university a constitution. No employment could have been more congenial to Fichte's inclinations. Here, indeed, had arrived at last the long-desired opportunity of developing a systematic plan of instruction founded on the spiritual elements of humanity. He entered with ardour upon the undertaking; and by the end of 1807 his plan, well digested and arranged, was ready for adoption: though the university was not actually established until 1810. Then, however, Fichte was elected rector; and it is said that during the two years in which he held the office, he laid for the institution the foundation of the character which it still maintains—that of being the best regulated, as well as one of the most efficient schools in Germany.

The course of events brings us down to the year of 1812, when the commotions and contentions of the European continent are working out a series of new and significant results. Napoleon the Grand, hitherto conceived to be invincible, has become at length Napoleon overthrown: Russian snows and Moscow conflagrations contributing to that unanticipated consummation. Now, it seems, the time has come when, by the blessing of Providence, and a seasonable use of gunpowder, the Germans may recover their lamented independence. Wise in his generation, the king of Prussia enters into an alliance with the Russian emperor, and straightway from Breslau sends forth a proclamation, calling upon the young and active men of the country to arm themselves for the restoration of its liberty. The Germans aforetime have suffered much defeat, in spite of skilful and experienced commanders; nevertheless they do not hesitate to answer to the summons, but with grim consent march forwards to fight for freedom, or in default thereof, to get themselves patriotically shot!

An earnest Fichte shall now assuredly have a chance of exhibiting his mettle. He renews his application to be appointed military orator, that so he might share the dangers and animate the courage of the 'army of liberation.' But there are difficulties of the insuperable sort which exclude him from any such appointment. It seems that of all that warlike oratory with which he is inwardly and so intensely burning, he cannot get himself satisfactorily delivered. In which exigency it appears best to remain stationary in Berlin, and there lecture 'On the Idea of a True War.' Meantime he and other patriot professors can organise an army of reserve of the volunteer description, and announce its readiness to contribute personally, when called for, to the defence of Fatherland. Professors and literati also institute, on novel principles, a sort of impromptu life-assurance society, whereby the widows and children of such as may fall in battle shall be provided for by the amenities of survivors.

But who is this stealing upon us in the solemn night-time with moody, sinister aspect, and air of affrightened courage, like one who had recently killed a brother sinner in a duel, and needed absolution? Him we discern, after due scrutiny, to be a veritable Captain Swing, or untimely resurrection of Guy Faux—student of philosophy notwithstanding—who, taking counsel of the powers of darkness, has conceived a plan for firing the magazine of the enemy by stealth, and thus blowing them compendiously out of the planet. Fichte, to whom the scheme is revealed, will be no partner in such atrocity. With cool alacrity he is off by break of day to the superintendent of police, and has the whole abominable business timeously prevented. If the powers on high are indifferent to interfere in the defence of right, the devil shall in no case be invited to condescend with his assistance! The sacred cause of freedom shall not be sullied by that kind of partnership.

Captain Swing retires with his tinder-box to the subterranean shades of an ignominious obscurity, and Fichte meantime continues lecturing on the perils and disasters of the times. 'With a clearness and energy of thought which seemed to increase with the difficulties and danger of his country,' he keeps alive in the people an unquenchable animosity to the compromise of liberty, or to any terms or conditions of peace which did not recognise the unlimited independence of the German kingdoms. Austria, it is true, mediates, and persuades to compromise, whereby ensues only a *nominal* independence: but a 'brave and earnest people,' seeking for 'true freedom,' express unanimous dissatisfaction with the counterfeit, and are obviously inclined towards violation of the amnesty. Hostilities are accordingly recommenced, and go on through the autumn and winter months of 1813.

It was at the commencement of this campaign that the multitudinous students of Berlin were one day assembled to hear Professor Fichte lecture on the imposing topic of 'Duty.' There is breathless waiting and expectation; whispered prurient criticisms on the great master, whom all are nevertheless met reverently to hear; interchange of college gossip, reminiscences of Burschen jollity, small talk and scandal, wrath and effervescence of independency, vapid jests and commonplace solemnities, with a marvellous redolence of stale tobacco; here and there a flash of native wit of characteristic brilliancy, but oftener only an involuntary parody of some loftier speculation, stated in a phraseology so vague as to make the speaker seem

profound, and like one who would probably understand his subject but for the impediment of stupidity. Such, as near as we can guess, is the scene and the occasion. Behold, however, Fichte has arrived, calm and modest as a lion, standing in unconscious lordliness under the shade of forest-trees. There is hush of miscellaneous tongues, and a simultaneous preparation for listening—as when the sun shines forth upon the hemisphere, provident householders disperse their candle-lights. He lectures with his usual dignity and calmness, rising at intervals into fiery bursts of eloquence, but governed always by a wondrous tact of logic, such as few men could equal. From the topic of Duty in the abstract he leads his audience to the present state of national affairs. On them he glows and expands with animation; the rolling of drums without meanwhile frequently drowning his voice, but inspiring him with fresh spirit to proceed. He paints the desolation of his country—the withering hideousness of usurpation—the boundless ravages and ambition of the foe; he swells with a sublime hatred and indignation against oppressors; and passionately enforces it as the duty of every one before him to consecrate his individual strength and faculty to the rescue of his native land. ‘Gentlemen,’ he exclaims finally, ‘this course of lectures will be suspended till the end of the campaign. We will resume them in a free country, or die in the attempt to recover her liberties!’ The hall reverberates with loud responsive shoutings; the rolling of the outward drums is answered by the clapping of innumerable hands, and the stampings of a thousand feet; every German heart there present is moved to resolution, and pants for conquest or for martyrdom. The orator, like the fabled Orpheus, by the impassioned melody of his words has achieved the miracle of moving stones—stones reputed to have been quarried out of Harzgebirge rock, and shaped by supreme powers into Saxon men. Fichte descends from his place, passes through the crowd, and places himself in the ranks of a corps of volunteers then departing for the army.

The war went on in the neighbourhood of Berlin. The victories of Grossbeer and Dennewitz secured the capital from danger; but from its nearness to the scene of action it became a general hospital for the sick and wounded. The public institutions for their reception were speedily crowded, and soon entirely unequal to the demands made upon their means of relief. The authorities, therefore, called upon the inhabitants to come to their assistance with extraordinary contributions, and solicited the women to take charge of the sick. Foremost among those that devoted themselves to this amiable ministry was the wife of Fichte, who, as a patient nurse and dispensing angel of gruel and consolation, exerted herself sedulously for the space of five months. In the distribution of clothes, and food, and medicine—in the exercise of pious offices around the beds of the dying and unknown, by generous and womanly solicitude in many ways—she day by day contributed to the alleviation of no inconsiderable suffering and sorrow.

As a consequence of her long uninterrupted exertions in the hospitals, she began at length to feel alarming symptoms of illness. In January 1814 she was attacked by a violent nervous fever, which had been prevalent among the wounded. It shortly became so dangerous as to leave hardly a hope of her recovery. On the very day when she was in greatest peril, Fichte, who had been engaged in close and assiduous attendance

upon her from the commencement of her illness, was compelled to leave her, to deliver the first of a course of lectures which he had previously announced. With wondrous self-command he spoke for two hours on the most abstract subjects, scarcely hoping to find, on his return, his beloved companion still alive. This, as it happened, was the crisis of her disorder. With transports of gratitude and joy he hailed the indications of recovery; those who witnessed the excess of his delight were alone able to estimate the almost superhuman power of control which he had exercised while engaged in his academical vocation.

Beautiful are the tremblings of affection, and the graceful tenderness of those who, after danger or anxiety, look thankfully in each other's face on delivery from fear. Beautiful the new-born flowerage of love that springs from past calamity. Yet often does it happen, in our world of vicissitude and care, that at the very time when we have been graciously relieved from apprehension, then does a new and terrible distress befall us. Even so it was, tated to be now. As his wife was being restored to him with health, Fichte himself caught the infection. Its first symptom was a nervous sleeplessness, which resisted the effect of baths and the remedie applied for its relief. Then he was attacked by a wild delirium, in which the memories of past activity mingled confusedly with the phantasms of present pain. The valiant soul in its bewilderment held conflict with imaginary foes, and struggled with deadly passion against the invisible furies of a stampered fancy. At times he conceived that only will and resolution were required to conquer the disease, and would strive desperately to resist the insidious agonies which were vanquishing his strength. In one of his lucid intervals, which were brief and seldom, he was told of Blücher's passage of the Rhine, and the final expulsion of the French from Germany. Then rose before him resplendent visions of future blessedness for Fatherland, and he imagined himself to be contending in the fray for the restoration of its liberties. All this feverish excitement and restlessness wore away his life. Once when his son was approaching him with medicine, he said, with a look of much affection, 'Leave it alone; I need no more of that: I feel that I am well.' He passed some hours in profound and unbroken sleep; nevertheless, on the eleventh day of his illness, during the night of the 27th of January 1814, he died. He died in his fifty-second year, while his bodily and mental faculties were as yet unimpaired by age; his fine black hair unshaded by any signs of gray; his step still firm, and his whole appearance vigorous and well sustained. 'So robust an intellect—a soul so calm, so lofty, massive, and commanding,' the world shall not see again for many days.

And so, reader, we have come abruptly to the strong man's end. We have followed him—not without a sympathising admiration—through the changes and chances of his life; and now we must pause in reverence over the untimely grave of his mortality. His life has been 'a battle and a march' against the principalities of evil and temptation—a conflict with error and insincerity, in others and in himself; and now the valiant soul has attained to its rest, the strong courageous fighter goes home with victory. The doctrine which he taught, and practically asserted by his life, is a justification of that higher hope which dawns in all times upon

earnest and enthusiastic souls—that lofty and commanding faith in the integrity of the moral principle in man, which seeks to transform the world into the image of the ideal. If it be true, as has been said, that the whole value of history and biography is to increase our self-trust, by demonstrating what is possible to man, then shall the life of this man be an encouragement and indication to them who would strive to fashion their own in accordance with the eternal realities of things. In severe rectitude, in endurance that would not shrink, in energy, and perseverance, and resolution, in incorruptible integrity and devout heroism of character, he is admirable for ever: ‘as a man approved by action and suffering, in his life and in his death, he ranks with a class of men who were common only in better ages than ours,’ but who were needed in no age more imperatively than now. The grand moral of his life, did any one still need to ask it, is to shew the possibilities of worth and virtue which are yet open to other men. Farewell, thou brave Fichte! and may the love of good men everywhere embalm thee in their memory!*

* The facts related in this Paper are principally derived from a Life of Fichte by his son. The writer has been partly aided in shaping them to the present result by an English ‘Memoir’ by William Smith; whose excellent translations of several of Fichte’s writings he takes the opportunity of recommending to the attention of studious and intelligent readers.

